



*Micro***Tik**



routerboard

PRODUCT CATALOG Q1 2014

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Why MikroTik?

MikroTik provides routing and wireless equipment for all possible uses - from the customer location, up to high end data centres.

We have an extensive network of trained consultants, training centres and distributors in almost every country of the world.

Established in Europe in 1996, we have 17 years of experience in networking and wireless installations.

Our in-house developed RouterOS software now supports most common and many special features and we are constantly adding new customer requested features.

Build wireless links across seas, internet exchanges between countries, and secure tunnels between banks. MikroTik can do it all.

Reseller, trainer and consultant map



- Best price/performance
- Millions of RouterOS powered devices currently routing the world
- Seventeen years of developing networking software and hardware
- Over 20'000 RouterOS trained and certified network engineers
- More than 1600 training classes in the last year
- World wide network of certified consultants
- Offering products that support simple CPEs to complex enterprise networks
- Thousands of pages of documentation, examples, application notes, and guides

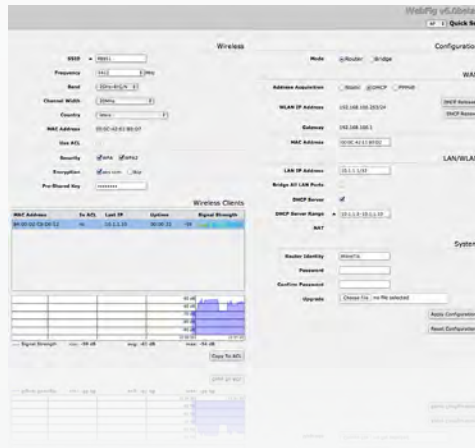
RouterOS

MikroTik RouterOS is the operating system of MikroTik RouterBOARD hardware.

It has all the necessary features for an ISP - routing, firewall, bandwidth management, wireless access point, backhaul link, hotspot gateway, VPN server and more.

RouterOS is a stand-alone operating system based on the Linux v3.3.5 kernel, and our goal here at MikroTik is to provide all these features with a quick and simple installation and an easy to use interface.

- Powerful QoS control
- RIP, OSPF, BGP, MPLS routing
- P2P traffic filtering
- Bonding of Interfaces
- Stateful firewall, tunnels
- (R)STP bridging with filtering
- High speed 802.11a/b/g/n
- Wireless TDMA (Nv2)
- WDS and Virtual AP
- HotSpot Plug-and-Play access
- WinBox GUI and Web admin
- Telnet/mac-telnet/ssh/console
- Real-time configuration and monitoring



MikroTik

MikroTik is a router software and hardware manufacturer, that offers the most user friendly, up to carrier-class routing and network management solutions. Our products are used by ISPs, individual users and companies for building data network infrastructures all across the world.

There are millions of installations worldwide going back as far as 1996!

Our mission is to make existing Internet technologies faster, more powerful, and affordable to wider range of users.

- Based in Europe
- 110 employees
- Established in 1996
- 17th anniversary this year
- RouterOS in 1997
- RouterBOARD in 2002
- First MUM Prague, Czech Republic in 2006

MUM

MikroTik User Meeting (MUM) is a conference on MikroTik RouterOS software and RouterBOARD hardware. Ask questions, attend workshops, listen to presentations, talk with specialists and see interesting technology demos by MikroTik and the users themselves - all here, at the MUM!

The MikroTik User Meeting brings many MikroTik users together at once, so you can get the maximum information in the shortest time.

The MUM has taken place already 51 times, in 23 countries in all continents. Every year, more people attend these great events - every next event breaking the previous attendance record. More than 1100 people attended the conference in Indonesia in 2012! You should come too!



Academy

Colleges, universities, and schools around the world are starting MikroTik Academy programs to offer students Internet networking courses using MikroTik RouterOS as a learning tool. We are actively enrolling new locations weekly and looking for new applicants.

There are no charges from MikroTik for material, online testing, and online certificates associated with this program. MikroTik Academy program offers schools an excellent networking education program and program materials for little or no cost.

The program courses offer:

- a proven network education program
- official MikroTik RouterOS certification exams
- discounted (and free) hardware and free RouterOS licenses for training classes

If there is an educational institution near you that could be interested in the MikroTik Academy program, please contact us or forward this information to them.

Please contact us at training@mikrotik.com.

Official MikroTik Academy Web Page:
<http://www.mikrotikacademy.com>

MikroTik Academy application form:
<http://www.mikrotikacademy.com/apply>



RB260GS

The RB260GS is a small SOHO switch. It has five Gigabit Ethernet ports and one SFP cage powered by an Atheros Switch Chip.

It is powered by an operating system designed specifically for MikroTik Switch products - SwOS.

SwOS is configurable from your web browser. It gives you all the basic functionality for a managed switch, plus more: Allows to manage port-to-port forwarding, apply MAC filter, configure VLANs, mirror traffic, apply bandwidth limitation and even adjust some MAC and IP header fields.

- Smart switch
- Small and compact
- Plastic case
- Five Gigabit ports
- One SFP cage
- Web interface controlled



CPU	Taifatech TF470
Memory	Embedded 96K SRAM
Ethernet	Five 10/100/1000 Ethernet ports, Atheros switch AR8327
SFP	One fixed Gigabit Ethernet SFP cage with DDMI support (Mini-GBIC; SFP module not included)
Serial port	No serial port
LEDs	Power, NAND activity, 5 Ethernet activity LEDs
Extras	Hardware watchdog
Power options	PoE: 8-30V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	113x138x29mm. Without packaging and PSU: 212g
Power consumption	Up to 6W
Operating Temperature	-25C .. +65C
Operating System	MikroTik SwOS

Cloud Router Switch

CRS125-24G-1S

Perfect SOHO gateway router and switch

- Ethernet, Fiber, or 4G (with optional USB modem) gateway connection to Internet
- RouterOS gateway/firewall/VPN router
- up to twenty-five gigabit switch ports (1xSFP and 24xRJ45)



CRS125-24G-1S-RM



CRS125-24G-1S-IN

Cloud Router Switch is our new Smart Switch series. It combines the best features of a fully functional router and a Layer 3 switch, is powered by the familiar RouterOS. All the specific Switch configuration options are available in a special Switch menu, but if you want, ports can be removed from the switch configuration, and used for routing purposes.

Two models are available:

1. CRS125-24G-1S-IN - desktop enclosure
2. CRS125-24G-1S-RM - 1U rackmount enclosure

- Fully manageable L3 switch, full wire speed switching
- Configure ports as switch, or for routing
- If required, full RouterOS power right there

CPU	Qualcomm Atheros AR9344 600 MHz
Memory	128MB
Ethernet	24x 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X
SFP	One 1.25G Ethernet SFP cage (Mini-GBIC; SFP module not included), DDML support
Expansion	microUSB port
Storage	128MB Onboard NAND with multiple OS partition support
Serial port	One RJ45 serial port
Extras	Reset switch; beeper; voltage and temperature monitoring, touchscreen LCD
Power options	8-28V, 24V 0.8A PSU included, PoE in: 8-30V on Ether1
Case dimensions	285x145x45mm (-IN model), 443x145x45mm (-RM model)
Temperature	-35C to +65C tested
OS	MikroTik RouterOS v6, Level 5 license
Included	CRS switch, power adapter, and USB OTG cable (for 4G dongle or USB drive)

Cloud Router Switch CRS125-24G-1S-2HnD-IN

Perfect SOHO gateway router, switch, 11n AP all in one box

- Ethernet, Fiber, or 4G (with optional USB modem) gateway connection to Internet
- RouterOS gateway/firewall/VPN router
- up to twenty-five gigabit switch ports (1xSFP and 24xRJ45)
- 1000mW high power 2.4GHz 11n wireless AP



Cloud Router Switch is our new Smart Switch series. It combines the best features of a fully functional router and a Layer 3 switch, is powered by the familiar RouterOS. All the specific Switch configuration options are available in a special Switch menu, but if you want, ports can be removed from the switch configuration, and used for routing purposes.

All the specific Switch configuration options are available in a special Switch menu, but if you want, ports can be removed from the switch configuration, and used for routing purposes.

What's more - this device has a built in 2.4GHz wireless access point, this means you can have an AP, a router with any number of ports, and a full wire speed smart switch, all in one device - ideal for medium/small businesses and offices. It has 24 Gigabit ports, one SFP cage, a microUSB port and a built in Wireless AP.

- Fully manageable L3 switch, full wire speed switching
- Wireless AP built in
- Configure ports as switch, or for routing

CPU	Qualcomm Atheros AR9344 600 MHz
Memory	128MB
Ethernet	24x 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X
SFP	One 1.25G Ethernet SFP cage (Mini-GBIC; SFP module not included), DDMI support
Expansion	microUSB port
Storage	128MB Onboard NAND with multiple OS partition support
Serial port	One RJ45 serial port
Extras	Reset switch; beeper; voltage and temperature monitoring, touchscreen LCD
Power options	8-28V, 24V 1.2A PSU included, PoE in: 8-30V on Ether1
Case dimensions	285x145x45mm
Temperature	-35C to +65C tested
OS	MikroTik RouterOS v6, Level 5 license
Included	CRS switch, power adapter, and USB OTG cable (for 4G dongle or USB drive)

Antennas	2x built in 4dBi swivel antennas
RX sensitivity	802.11g: -96dBm @ 6Mbit/s to -80dBm @ 54Mbit/s 802.11n: -96dBm @ MCS0 to -78dBm @ MCS7
TX power	802.11g: 30dBm @ 6Mbps to 25dBm @ 54 Mbps 802.11n: 30dBm @ MCS0 to 23dBm @ MCS7
Modulations	OFDM: BPSK, QPSK, 16 QAM, 64QAM DSSS: DBPSK, DQPSK, CCK

Cloud Router Switch

CRS226-24G-2S+IN

Cloud Router Switch is our new member of our Smart Switch series. It combines the best features of a fully functional router and a Layer 3 switch, is powered by the familiar RouterOS. All the specific Switch configuration options are available in a special Switch menu, but if you want, ports can be removed from the switch configuration, and used for routing purposes

The CRS226 uses a new class of switch chips, which allows us to have two SFP+ ports for 10G connectivity.

- Fully manageable L3 switch, full wire speed switching
- Configure ports as switch, or for routing
- If required, full RouterOS power right there
- SFP+ ports for 10G connectivity



Product code	CloudRouterSwitch 226-24G-2S+IN
CPU	Qualcomm Atheros QCA8519 400 MHz
Memory	64MB
Ethernet	24x 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X
SFP	Two 10G Ethernet SFP+ cages (Mini-GBIC; SFP module not included), DDMI support
Storage	128MB Onboard NAND with multiple OS partition support
Serial port	One RJ45 serial port
Extras	Reset switch; beeper; voltage and temperature monitoring, touchscreen LCD
Power options	8-28V, 24V 1.2A PSU included, PoE in: 8-30V on Ether1
Case dimensions	285x145x45mm
Temperature	-35C to +65C tested
OS	MikroTik RouterOS v6, Level 5 license
Included	CRS switch, power adapter

RB750

The RB750 is a small five port ethernet router in a nice plastic case. Not only is this an attractive looking tiny SOHO unit, it's price is lower than the RouterOS license alone - there simply is no choice when it comes to managing your wired home network, the RB750 has it all. Small, powerful, affordable and fully featured. There are three models available: RB750, RB750GL which has Gigabit ports, and RB750UP which has PoE power output. RB750UP ports 2-5 can power other PoE capable devices with the same voltage as applied to the unit. Less power adapters to worry about.



Model	RB750, RB750GL, RB750UP
CPU	AR7241 400MHz CPU
Data storage	NAND memory chip
Ethernet	Five Ethernet ports with Auto-MDI/X. Hardware switch chip and port mirror support
LEDs	Power, NAND activity, 5 Ethernet LEDs
Power input	PoE: 8-30V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Power output	Only RB750UP: ports 2-5. Max current 500mA per port, 1A per port with software upgrade
Dimensions	113x89x28mm. Weight without packaging and cables: 130g
Power consumption	Up to 3W
Operating System	MikroTik RouterOS, Level4 license
Package contains	RouterBOARD in a plastic case, power adapter

Feature / Model	750	750GL	750UP
CPU MHz	400Mhz	400Mhz	400MHz
RAM MB	32MB	64MB	32MB
PoE output	-	-	Yes
USB	-	-	Yes
Voltage monitor	-	-	Yes
Gigabit LAN	-	Yes	-
RouterOS License	L4	L4	L4

RB2011L

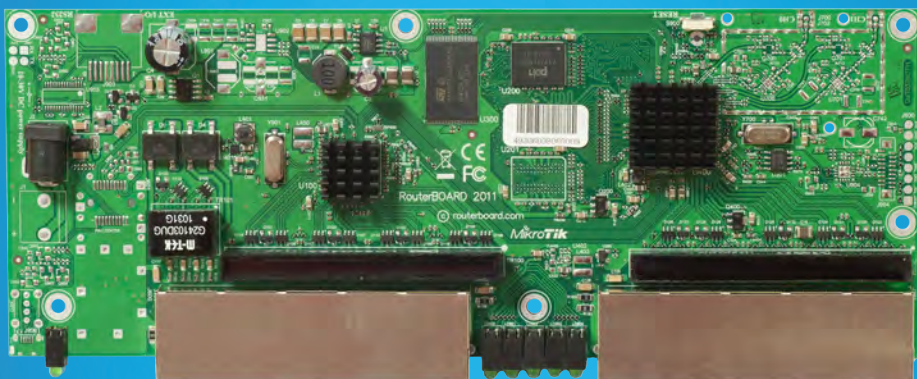
The RB2011L is a low cost multi port device series. Designed for indoor use, and available in many different cases, with a multitude of options.

The RB2011L series includes five models, RB2011L, RB2011iL-IN (desktop case and power out) and RB2011iL-RM (rackmount case), RB2011LS (adds SFP port) and RB2011iLS-IN (LS in desktop case and power output).

It's powered by the new Atheros 600MHz 74K MIPS network processor and has 64MB of RAM and a Level4 RouterOS license.



RB2011iL-IN



RB2011L



RB2011iL-RM

CPU	Atheros AR9344 600MHz
Memory	64MB DDR SDRAM onboard memory
Ethernet	Five 10/100 Mbit Fast Ethernet ports with Auto-MDI/X Five 10/100/1000 Mbit Gigabit Ethernet ports with Auto-MDI/X
Expansion	<i>RB2011LS model:</i> SFP port (DDMI support)
Extras	Reset button, Reset jumper
LEDs	Power, User, Ethernet activity
Power input	Jack 8-28V DC; PoE: 8-28V DC on Ether1 (Non 802.3af).
Power output	For RB2011iL-RM, RB2011iL-IN, RB2011iLS-IN: 500mA on Port 10
Board dimensions	214 mm x 86 mm, Weight: 151g
Power consumption	8W max
Operating System	MikroTik RouterOS, L4 license
Package includes	RB2011; For IN and RM model also indoor case and power supply.

Feature / Model	2011L	2011iL-IN	2011iL-RM	2011LS	2011iLS-IN
Enclosure	-	Desktop	Rackmount	-	Desktop
SFP port	-	-	-	Yes	Yes
Power output	-	on port 10	on port 10	-	on port 10
USB	-	-	-	-	-
Wireless	-	-	-	-	-

RB2011UiAS

RouterBOARD 2011UiAS, in comparison with RB2011L series, not only has five Gigabit LAN ports and five Fast Ethernet LAN ports, but also has RJ45 serial port, microUSB port and more RAM (128MB instead of 64MB). Also, it has RouterOS L5 license (instead of L4) and nice touchscreen LCD for configuration. SFP cage is also present (SFP module not included!)

RouterBOARD 2011UiAS series includes two models- RB2011UiAS-IN (desktop enclosure) and RB2011UiAS-RM (1U rackmount enclosure). Both models includes power supply and support power output on port 10 (up to 500mA).



RB2011UiAS-IN



RB2011UiAS-RM

CPU	Atheros AR9344 600MHz
Memory	128MB DDR SDRAM onboard memory
Ethernet	Five 10/100 Mbit Fast Ethernet ports with Auto-MDI/X Five 10/100/1000 Mbit Gigabit Ethernet ports with Auto-MDI/X
Expansion	SFP port (DDMI support)
Extras	Reset button, Reset jumper
LEDs	Power, User, Ethernet activity
Power options	Jack 8-28V DC; PoE: 8-28V DC on Ether1 (Non 802.3af)
Dimensions	214 mm x 86 mm, Weight: 146g
Power consumption	15W max
Power output	500mA on Port 10
Operating System	MikroTik RouterOS, L5 license
Package includes	RB2011, power supply

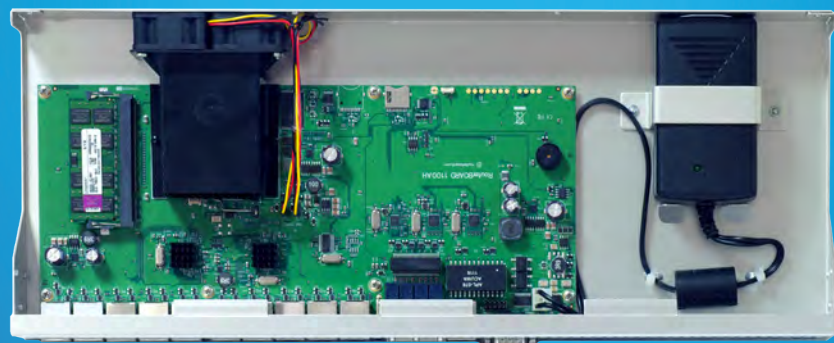
Feature / Model	2011UiAS-IN	2011UiAS-RM
Enclosure	Desktop	Rackmount
SFP port	Yes	Yes
LCD display	Yes	Yes
Serial port	Yes	Yes
USB	Yes	Yes
Wireless	-	-
Power output	port 10	port 10

RB1100AHx2

This device is a high performance 1U rackmount Gigabit Ethernet router. It has thirteen individual gigabit Ethernet ports, two 5-port switch groups, and includes Ethernet bypass capability.

RB1100AHx2 has a dual core 1066MHz CPU with hardware accelerated IPsec encryption, a SODIMM slot for RAM, one microSD card slot, a beeper and a serial port.

It comes preinstalled in a 1U aluminium rackmount case, assembled and ready to deploy.



CPU	PowerPC 1066MHz Dual Core with hardware encryption
Memory	SODIMM DDR Slot; 2GB installed (RouterOS supports up to 1.5GB)
Boot loader	RouterBOOT, 1Mbit Flash chip
Data storage	Onboard NAND memory chip
Ethernet	Thirteen 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X
Ethernet	Includes switch to enable Ethernet bypass mode in two ports
miniPCI	none
Storage	Onboard NAND, one microSD slot
Serial port	One DB9 RS232C asynchronous serial port
Extras	Reset switch, beeper, voltage and temperature sensors
Power options	IEC C14 standard connector 110/220V
Fan	Dual fan with failover support mounted at case back
Dimensions	1U case: 44 x 176 x 442 mm, 1275g. Board only: 365g
Operating System	MikroTik RouterOS, Level 6 license

Cloud Core Router

CCR1016-12G

CCR1016 is an industrial grade router with a cutting edge 16 core Tiler CPU. If you need many millions of packets per second - Cloud Core Router is your best choice.

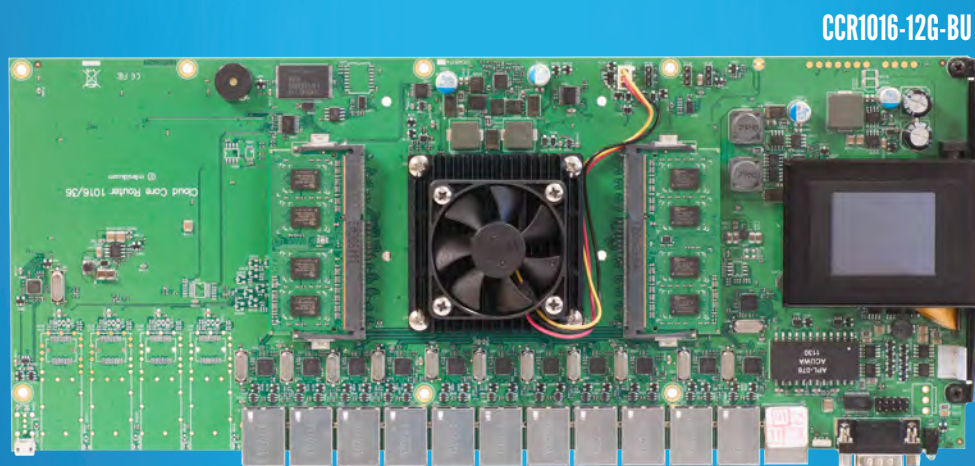
The device is available with a 1U rackmount case (CCR1016-12G) or without the case as a board unit (CCR1016-12G-BU), has twelve Gigabit ethernet ports, a serial console cable and a USB port.

The CCR1016-12G has two SODIMM slots, by default it is shipped with 2GB of RAM, but has no memory limit in RouterOS (will accept and utilize 16GB or more).

- 16 core networking CPU, 1.2GHz clock per core
- 12 Mbytes total on-chip cache
- State of the art TILE GX architecture
- Ports directly connected to CPU
- 1U rackmount case option
- 12x Gigabit ports
- Color touchscreen LCD display
- Up to 1.5 mpps throughput in regular mode
- Up to 17.8 mpps throughput in fastpath mode (wire speed)
- Up to 12 Gbps throughput with RouterOS queue/firewall configuration
- 3-10x faster than RB1100AHx2



CCR1016-12G



CCR1016-12G-BU

CPU	Tilera Tile-Gx16 CPU (16-cores, 1.2Ghz per core)
Memory	Two SODIMM DDR3 slots, 2x 1GB installed (no hw or software max limit)
Ethernet	Twelve 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X
Expansion	microUSB port, host and device mode
Storage	512MB Onboard NAND
Serial port	One DB9 RS232C asynchronous serial port
Extras	Reset switch; beeper; voltage, current and temperature monitoring; speed controlled fan
Power options	IEC C14 standard connector 110/220V, Power jack (BU model only). PSU included in both models.
Board dimensions	355x145mm55mm
Temperature	Max ambient temperature 50° @ 1.2GHz; 70° @ 1GHz CPU core frequency
OS	MikroTik RouterOS v6 (64bit), Level 6 license
Included	CCR1016-12G: router in a 1U case with LCD, PSU, power cable, usb cable CCR1016-12G-BU: router, PSU, power cable, mounted LCD screen, usb cable

Cloud Core Router

CCR1016-12S-1S+

CCR1016 is an industrial grade router with a cutting edge 16 core Tiler CPU. If you need many millions of packets per second - Cloud Core Router is your best choice.

This model has twelve SFP ports and one SFP+ port for 10G connectivity. It is available in a 1U rackmount case and also has a serial console port, a touchscreen LCD and a USB port.

The CCR1016-12S-1S+ comes with redundant power supplies and supports a Smart card, to store your private key for use in all features that support Certificate based authentication.

- 12x SFP ports for 1 Gigabit connectivity
- 1x SFP+ port for 10 Ggigabit connectivity
- 16 core Tiler CPU, 1.2GHz clock per core
- 12 Mbytes total on-chip cache
- State of the art TILE GX architecture
- Ports directly connected to CPU
- 1U rackmount case
- Color touchscreen LCD display
- two power supplies for redundancy

CPU	Tilera Tile-Gx16 CPU (16-cores, 1.2Ghz per core)
Memory	2GB built-in RAM
SFP	Twelve SFP ports and one SFP+ port
Expansion	microUSB port
Storage	128MB Onboard NAND
Serial port	One DB9 RS232C asynchronous serial port
Extras	Beeper; voltage, current and temperature monitoring; fan; SIM size Smart card
Power options	2x IEC C14 standard PSU units built in, 110/220V
Board dimensions	290x155mm
Temperature	Max ambient temperature 50° @ 1.2GHz; 70° @ 1GHz CPU core frequency
OS	MikroTik RouterOS v6, Level 6 license
Included	CCR1016-12S-1S+: router in a 1U case with LCD, 2x PSU built in, IEC power cable



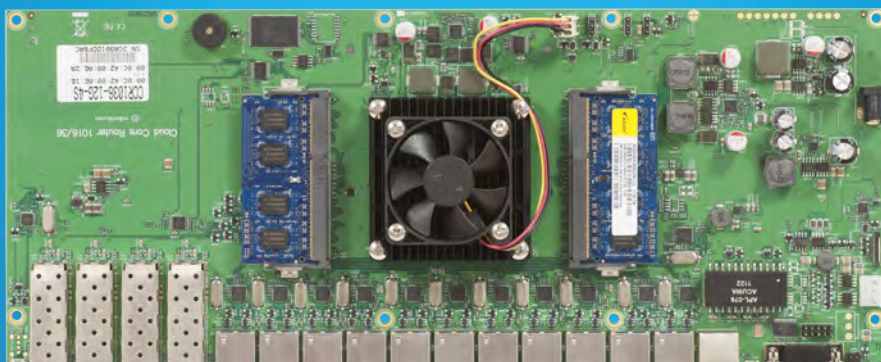
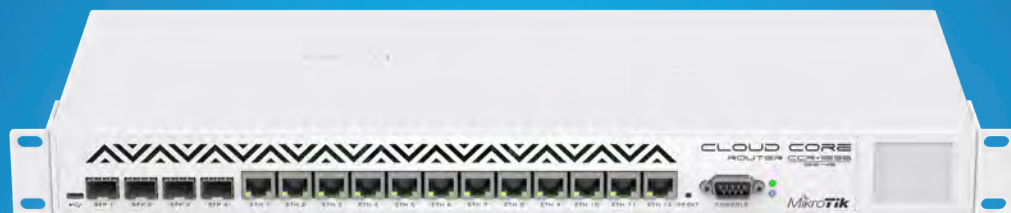
Cloud Core Router

CCR1036-12G-4S

CCR1036-12G-4S is an industrial grade router with cutting edge 36 core CPU! Unprecedented power and unbeatable performance - this is our new flagship device, the Cloud Core Router (CCR1036). If you need many millions of packets per second - Cloud Core Router with 36 cores is your best choice.

The device comes in a 1U rackmount case, has four SFP ports, twelve Gigabit ethernet ports, a serial console cable and a USB port.

The CCR1036-12G-4S has two SODIMM slots, by default it is shipped with 4GB of RAM, but has no memory limit in RouterOS (will accept and utilize 16GB or more). Also available now, the EM model with 16GB of RAM!

**New generation CPU**

- 36 core CPU
- 1.2GHz clock per core
- 12 Mbytes total on-chip cache
- State of the art TILE GX architecture

Highest performance

- 8 mpps standard forwarding
- 24 mpps fastpath forwarding (wire speed for all ports)
- Up to 16Gbit/s throughput

Full set of features

- 1U rackmount case
- 12x Gigabit ports
- 4x SFP ports
- Color touchscreen LCD
- Ports directly connected to CPU

CPU	Tilera Tile-Gx36 CPU (36-cores, 1.2Ghz per core)
Memory	Two SODIMM DDR3 slots, 2x2GB installed (no hw or software max limit) CCR1036-12G-4S-EM: 2x8GB RAM installed
Ethernet	Twelve 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X
SFP	Four 1.25G Ethernet SFP cage (Mini-GBIC; SFP module not included), DDMI support
Expansion	microUSB port, host and device mode
Storage	1GB Onboard NAND
Serial port	One DB9 RS232C asynchronous serial port
Extras	Reset switch; speed controlled fan; beeper; voltage, current and temperature monitoring
Power options	IEC C14 standard connector 110/220V (PSU included), up to 60W power consumption
Board dimensions	355x145mm55mm
Temperature	Max ambient temperature 50° @ 1.2GHz; 70° @ 1GHz CPU core frequency
OS	MikroTik RouterOS v6, Level 6 license
Included	Router in a 1U case with LCD, PSU, power cable, usb cable

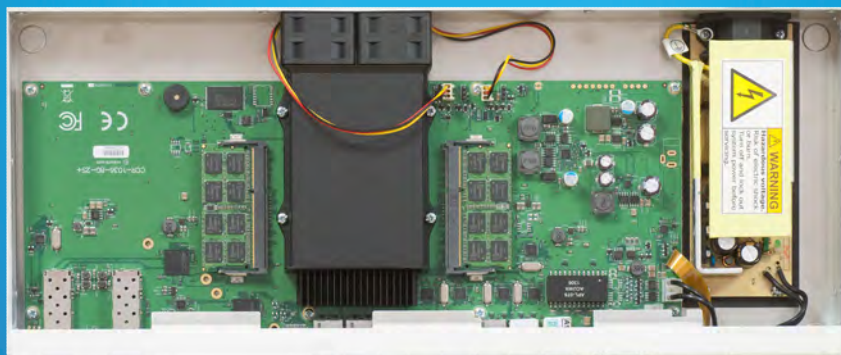
Cloud Core Router

CCR1036-8G-2S+

Our fastest router has now become even better - the new CCR1036-8G-2S+ now has two SFP+ ports for 10G interface support (SFP+ module available separately). It uses the same 36 core Tiler CPU as our other CCR1036 model, and delivers the same performance, but now, ten gigabit links are possible.

The device comes in a 1U rackmount case, has two SFP+ ports, eight Gigabit ethernet ports, a serial console cable and a USB port.

The CCR1036-8G-2S+ has two SODIMM slots, by default it is shipped with 4GB of RAM, but has no memory limit in RouterOS (will accept and utilize 16GB or more). Also available now, the EM model with 16GB of RAM!

**New generation CPU**

- 36 core CPU
- 1.2GHz clock per core
- 12 Mbytes total on-chip cache
- State of the art TILE GX architecture

Highest performance

- 8 mpps standard forwarding
- 41.5 mpps fastpath forwarding (wire speed for all ports)
- Up to 28Gbit/s throughput

Full set of features

- 1U rackmount case
- 8x Gigabit ports
- 2x SFP+ ports
- Color touchscreen LCD
- Ports directly connected to CPU

CPU	Tilera Tile-Gx36 CPU (36-cores, 1.2Ghz per core)
Memory	Two SODIMM DDR3 slots, 4GB (2x2GB) installed (no hardware or software max limit) CCR1036-8G-2S+EM: 16GB (2x8GB) RAM installed
Ethernet	Eight 10/100/1000 Mbit/s Gigabit Ethernet with Auto-MDI/X
SFP	Two 10G Ethernet SFP+ cages (Mini-GBIC; SFP module not included), DDMI support
Expansion	microUSB port, host and device mode
Storage	1GB Onboard NAND
Serial port	One DB9 RS232C asynchronous serial port
Extras	Reset switch; speed controlled fan; beeper; voltage, current and temperature monitoring
Power options	IEC C14 standard connector 110/220V (PSU included), up to 60W power consumption
Board dimensions	355x145mm55mm
Temperature	Max ambient temperature 50° @ 1.2GHz; 70° @ 1GHz CPU core frequency
OS	MikroTik RouterOS v6, Level 6 license
Included	Router in a 1U case with LCD, PSU, power cable, usb cable

mAP 2n

The mAP is a tiny size wireless Access Point with full RouterOS capabilities. It can also be very portable, since it accepts power from a wide variety of sources - USB, Passive or Active PoE (802.3af and 802.3at) and power jack.

In addition to using this device as a small and portable AP, it also works as a PoE injector - the second Ethernet port provides up to 500mA of power to another device, for example, you can connect a SXT CPE device to it.

- PoE injector 8-57V
- Built in 2GHz AP
- microUSB for a 3G/4G modem, or for powering AP
- Station or AP mode
- Any PoE in 802.3af and 802.3at
- Passive PoE output



Product code	RouterBOARD mAP 2n
CPU	Qualcomm Atheros AR9331 400 MHz
RAM	64MB DDR2
Ethernet	2x 10/100 Mbit/s Ethernet with Auto-MDI/X
Storage	16MB built in flash storage
Extras	microUSB type AB with power reset capability, for 3G/4G modem, storage or powering
Wireless	AR9331, 2GHz 802.11b/g/n built in
Antenna	1.3dBi built in
Power input	802.3af/at PoE 12-56V, 24V 0.8A PSU included, supports powering from USB
Power output	Passive PoE output, up to 500mA on Ether 2
Case dimensions	68x68x19mm
Temperature	-10C to +70C tested
OS	MikroTik RouterOS v6, Level 4 license
Included	mAP device, 24V 0.8A power adapter

RB951-2n

The RB951-2n is the home wireless AP you have been waiting for. It has five Ethernet ports and a 802.11b/g/n wireless AP with an antenna built in.

This model is much smaller than the more powerful RB751-2HnD model, the RB951-2n looks exactly like our popular RB750 series. The device is very small and will look good in any home or office, wall mounting anchor holes are provided.



CPU	Atheros AR9331 300MHz CPU
Memory	32MB DDR SDRAM onboard memory
Ethernet	Five independent 10/100 Ethernet ports
LEDs	Power, NAND activity, 5 Ethernet LEDs
Power options	PoE: 8-30V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	113x89x28mm. Weight without packaging and cables: 142g
Power consumption	Up to 3W
Operating Temp	-20C .. +50C
Operating System	MikroTik RouterOS, Level4 license
Package contains	RouterBOARD in a plastic case, power adapter

Antennas	1x1 MIMO with two onboard PIF antennas, max gain 1.5dBi
TX power	802.11b: 17dBm @ 11Mbps 802.11g: 15dBm @ 6Mbps to 11 dBm @ 54 Mbps 802.11n: 15dBm @ MCS0 to 9dBm @ MCS7 40MHz
RX sensitivity	802.11g: -92dBm @ 6Mbit/s to -73dBm @ 54Mbit/s 802.11n: -92 dBm @ MCS0 to -67 dBm @ MCS7
Modulations	OFDM: BPSK, QPSK, 16 QAM, 64QAM DSSS: DBPSK, DQPSK, CCK

RB951G-2HnD

The RB951G-2HnD is a wireless SOHO Gigabit AP with a new generation Atheros CPU and more processing power. It has five Gigabit Ethernet ports, one USB 2.0 port and a high power 2.4GHz 1000mW 802.11b/g/n wireless AP with antennas built in.

In comparison with previous model RB751G-2HnD, it has more powerful 600MHz CPU (instead of 400MHz), more RAM – 128MB instead of 64MB, same form factor and price. The device is very small and will look good in any home or office, wall mounting anchor holes are provided.

Package contains RouterBOARD 951G-2HnD in a plastic case and power adapter.



Features	RB951G-2HnD (Gigabit, USB, 2GHz, 802.11n, dual chain)
CPU	Atheros AR9344 600MHz CPU
Memory	128MB DDR2 onboard memory
Ethernet	Five independent 10/100/1000 Gigabit Ethernet ports. Max L2MTU 4074
LEDs	Power, NAND activity, 5 Ethernet LEDs, wireless activity LED
Power options	PoE: 8-30V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	113x138x29mm
Weight	Without packaging and PSU: 232g, full weight in package: 420g
Power consumption	Up to 7W
Operating Temp	-20C .. +50C
Operating System	MikroTik RouterOS, Level4 license
Package contains	RouterBOARD in a plastic case, power adapter (12V, 1A)

Antennas	2x2 MIMO PIF antennas, max gain 2.5dBi
RX sensitivity	802.11g: -96dBm @ 6Mbit/s to -80dBm @ 54Mbit/s 802.11n: -96dBm @ MCS0 to -78dBm @ MCS7
TX power	802.11g: 30dBm @ 6Mbps to 25dBm @ 54 Mbps 802.11n: 30dBm @ MCS0 to 23dBm @ MCS7
Modulations	OFDM: BPSK, QPSK, 16 QAM, 64QAM DSSS: DBPSK, DQPSK, CCK

RB951Ui-2HnD

The RB951Ui-2HnD is a wireless SOHO AP with a new generation Atheros CPU and more processing power. It has five Ethernet ports, one USB 2.0 port and a high power 2.4GHz 1000mW 802.11b/g/n wireless AP with antennas built in.

It has a 600MHz CPU, 128MB of RAM and PoE output function for port 5 - it can power other PoE capable devices with the same voltage as applied to the unit. Maximum load on the port is 500mA.

Package contains RouterBOARD 951Ui-2HnD in a plastic case and power adapter.



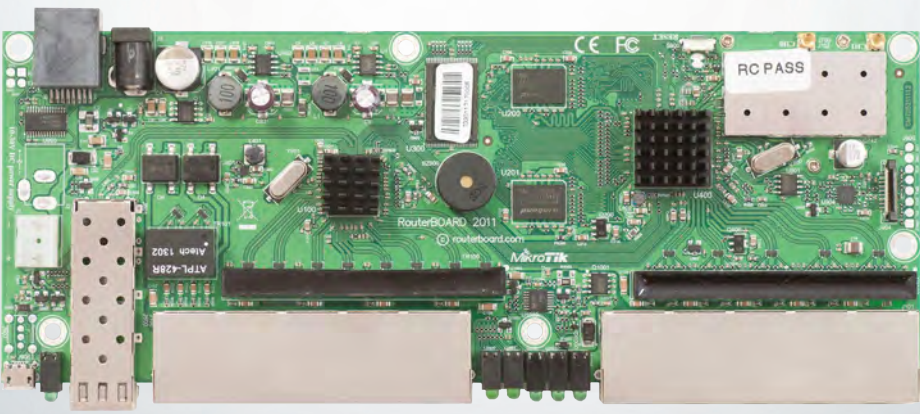
Features	RB951Ui-2HnD (USB, power injector, USB, 2GHz, 802.11n, dual chain)
CPU	Atheros AR9344 600MHz CPU
Memory	128MB DDR2 onboard memory
Ethernet	Five independent 10/100 Ethernet ports
LEDs	Power, NAND activity, 5 Ethernet LEDs, wireless activity LED
Power in	PoE: 8-30V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Power out	PoE passive on port 5, same voltage as input, 500mA output.
Dimensions	113x138x29mm
Weight	Without packaging and PSU: 225g, full weight in package: 420g
Power consumption	Up to 7W
Operating Temp	-20C .. +50C
Operating System	MikroTik RouterOS, Level4 license
Package contains	RouterBOARD in a plastic case, power adapter (24V 0.8A)

Antennas	2x2 MIMO PIF antennas, max gain 2.5dBi
RX sensitivity	802.11g: -96dBm @ 6Mbit/s to -80dBm @ 54Mbit/s 802.11n: -96dBm @ MCS0 to -78dBm @ MCS7
TX power	802.11g: 30dBm @ 6Mbps to 25dBm @ 54 Mbps 802.11n: 30dBm @ MCS0 to 23dBm @ MCS7
Modulations	OFDM: BPSK, QPSK, 16 QAM, 64QAM; DSSS: DBPSK, DQPSK, CCK

RB2011UiAS-2HnD

RouterBOARD 2011UiAS-2HnD has most features and interfaces from all our Wireless routers. It's powered by the new Atheros 600MHz 74K MIPS network processor, has 128MB RAM, five Gigabit LAN ports, five Fast Ethernet LAN ports and SFP cage (SFP module not included!). Also, it features powerful (up to 1W!) dual chain 2.4Ghz 802.11bgn wireless, RJ45 serial port, microUSB port and RouterOS L5 license.

Two models are available - RB2011UiAS-2HnD (board only) and RB2011UiAS-2HnD-IN (comes with desktop enclosure, two indoor antennas for wireless, power supply and touchscreen LCD panel).



General specifications	
CPU	Atheros AR9344 600MHz
Memory	128MB DDR2 SDRAM onboard memory
Ethernet	Five 10/100 Mbit Fast Ethernet ports with Auto-MDI/X Five 10/100/1000 Mbit Gigabit Ethernet ports with Auto-MDI/X
Wireless	2HnD: Built in 2GHz dual chain 802.11b/g/n wireless device 2HnD-IN: Also includes two 4dBi swivel antennas
Expansion	One fixed Gigabit Ethernet SFP cage (Mini-GBIC; SFP module not included)
Extras	Reset button, Reset jumper, RJ45 serial port, LCD panel, Temperature and Voltage sensors, powered micro-B USB connector, Beeper
Power input	Jack 8-28V DC; PoE: 8-28V DC on Ether1 (Non 802.3af). 15W max consumption
Power output	500mA on Port 10
Dimensions	214 mm x 86 mm, Weight (board with LCD): 233g
Operating System	MikroTik RouterOS, L5 license
Package includes	RB2011, power supply, (depends on model: enclosure), LCD screen (in case, or mounted on board)

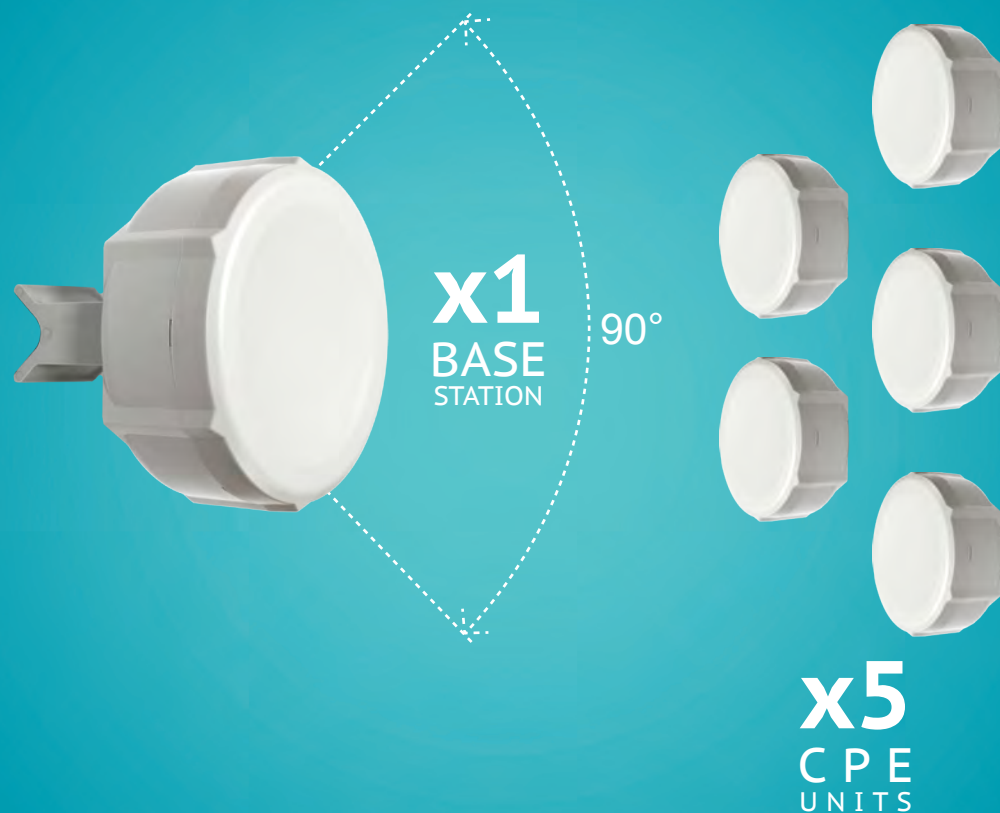
Feature / Model	2011UiAS-2HnD-IN	2011UiAS-2HnD
Enclosure	Desktop	-
SFP port	Yes	Yes
Serial port	Yes	Yes
USB	Yes	Yes
Wireless	Yes	Yes
Antennas	2x built in 4dBi swivel	None, MMCX connectors
LCD display	Yes	Yes

802.11b/g	RX Sensitivity	TX Power	802.11n	RX Sensitivity	TX power
1Mbit	-96	30dBm	MCS0/8 20MHz	-95	30dBm
11Mbit	-80	28dBm	MCS0/8 40MHz	-92	30dBm
6Mbit	-96	30dBm	MCS7/15 20MHz	-76	25dBm
54Mbit	-80	27dBm	MCS7/15 40MHz	-73	25dBm

SXT Sixpack

The Sixpack is a set of six devices - one 90 degree Access Point and five clients.

This offer gives you a complete starter kit for a wireless ISP setup.



- Ultimate kit for tower sector setup
- 1x 14dBi 90 degree Sector Base Station
- 5x High Power (1300mW) CPE units
- You pay only for CPE's - Base Station is included free of charge
- Coverage up to 10 km from Base Station
- Actual speed up to 200Mbps
- 10kV ESD protection on each RF port
- Specially shielded enclosure of the AP ensures better signal and reduces noise
- High quality antenna with -35dB port to port isolation

SXT 5GHz

SXT is a low cost, high speed MIMO 5GHz outdoor wireless device, available as a High Power or Lite version.

SXT-Lite5 provides the best price-performance ratio on the Wireless CPE market. Unit is equipped with powerful 600MHz CPU, 64MB RAM, 16dBi dual polarization antenna, poe, power supply and mounting kit. SXT-5HPnD is the high power version (30dBm TX power).

Complete with a ready to mount enclosure and built-in 16dBi antenna, SXT contains everything you need to make a point to point link, or connect to an AP.



Model	SXT 5HPnD	SXT Lite5
CPU	AR7241 400MHz CPU	AR9344 600MHz
Memory	32MB DDR	64MB DDR2
Ethernet	1x 10/100 Ethernet	1x 10/100 Ethernet port
Wireless cards	Onboard dual chain 5GHz 802.11a/n Atheros AR9280 wireless module; 10kV ESD protection on each RF port	
Extras	Reset switch, beeper, USB 2.0 port, voltage and temperature monitors	Reset switch, beeper
LEDs	Power LED, Ethernet LED, 5 wireless signal LED	
Power options	Power over Ethernet: 8-30V DC Packaged with 24V DC 0.8A power adapter and passive PoE injector	
Dimensions	140x140x56mm. Weight without packaging, adapters and cables: 265g	
Max consumption	11W at 24V	8W at 24V
Operating Temp	-30C .. +80C	
OS	MikroTik RouterOS, Level3 license	
Package contains	SXT wireless device with integrated antenna, pole mounting bracket, mounting ring, PoE injector, power adapter, quick setup guide	
Certifications	FCC, CE, ROHS	

	5HPnD	Lite5
TX/RX at MCS0	30dBm / -93dBm	27dBm / -95dBm
TX/RX at MCS7	26dBm / -71dBm	22dBm / -77dBm
TX/RX at 6Mbit	31dBm / -92dBm	27dBm / -95dBm
TX/RX at 54Mbit	28dBm / -77dBm	23dBm / -80dBm
Antenna	Dual pol. 25deg, 5GHz antenna, 16dBi, -35 dB port to port isolation	Dual pol. 25deg, 5GHz antenna, 16dBi, -35 dB port to port isolation

SXTG HG

SXTG HG is a High Gain, High Power wireless device designed and manufactured by MikroTik. The wireless output power for this device is up to 30dBm (1000 mW!).

It is equipped with 5GHz 17dBi 24 degree antenna, Gigabit Ethernet port and RouterOS L4 license (can be used as AP, Backbone or CPE). It is powered by our new generation AR9344 CPU, which makes it even more powerful, to ensure you get the maximum throughput.

Unit comes complete with SXT, PoE injector, power supply and mounting kit.



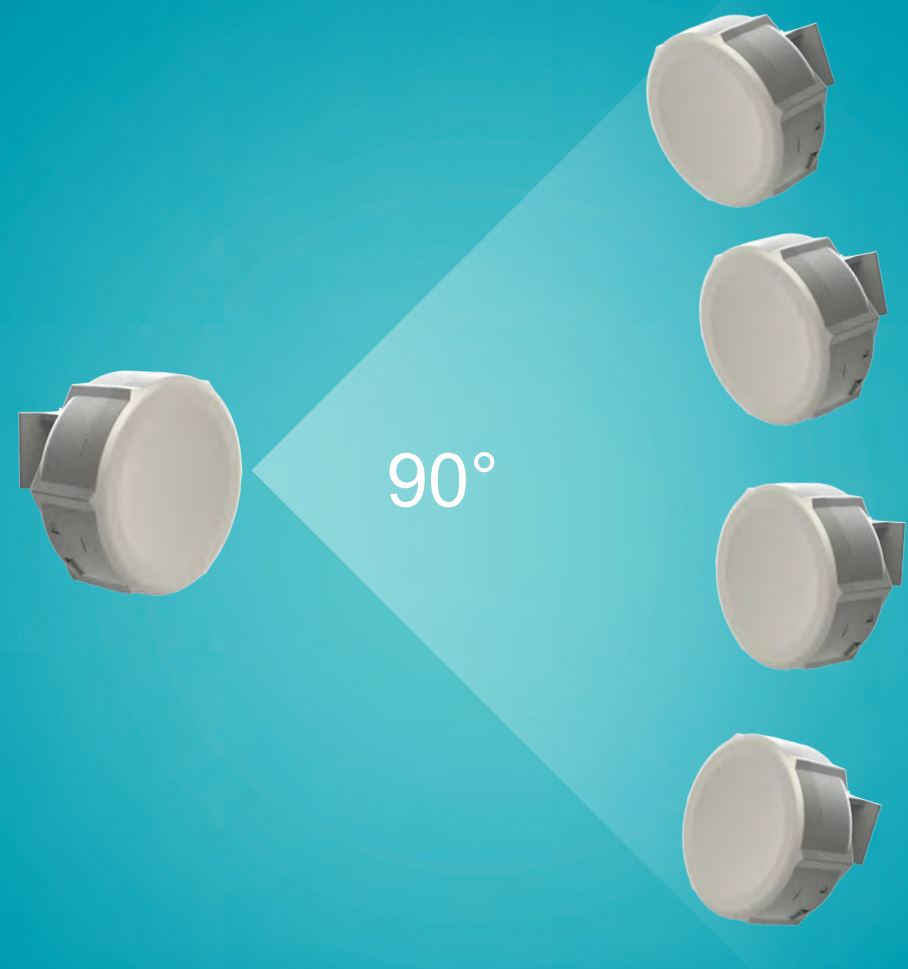
Product code	RBSXTG-5HPnD-HGr2
CPU	AR9344 600MHz CPU
Memory	64MB DDR2
Ethernet	1x 10/100/1000 Gigabit Ethernet
Wireless cards	Onboard dual chain 5GHz 802.11a/n Atheros AR9344 wireless module; 10kV ESD protection on each RF port
Extras	Reset switch, beeper, USB 2.0 port, voltage and temperature monitors
LEDs	Power LED, Ethernet LED, 5 wireless signal LED
Power options	Power over Ethernet: 8-30V DC Packaged with 24V DC 0.8A power adapter and passive PoE injector
Dimensions	140x140x56mm. Weight without packaging, adapters and cables: 265g
Max consumption	11W at 24V
Operating Temp	-30C .. +80C
OS	MikroTik RouterOS, Level4 license (AP support)
Package contains	SXT wireless device with integrated antenna, pole mounting bracket, mounting ring, PoE injector, power adapter, quick setup guide
Certifications	FCC, CE, ROHS

TX/RX at MCS0	30dBm / -93dBm
TX/RX at MCS7	26dBm / -71dBm
TX/RX at 6Mbit	31dBm / -92dBm
TX/RX at 54Mbit	28dBm / -77dBm
Antenna	Dual pol. 24deg, 5GHz antenna, 17dBi, -30 dB port to port isolation, 1.43 VSWR

SXT SA

SXTG-5HPnD-SAr2 is a low cost, high speed 5GHz outdoor wireless sector access point. It has a 90 degree antenna to provide a wider coverage than our previous SXT units.

Complete with a ready to mount enclosure and built-in 14dBi antenna, the package contains everything you need to set it up in a matter of minutes. The inside of the case is covered in special shielding to improve operation in high interference areas and antenna front to back ratio.



Model	RBSXTG-5HPnD-SAr2
CPU	AR9344 600MHz
Memory	64MB DDR2
Ethernet	1x 10/100/1000 Gigabit
Wireless cards	Onboard dual chain 5GHz 802.11a/n Atheros AR9280 wireless module; 10kV ESD protection on each RF port
Extras	Reset switch, beeper, USB 2.0 port, voltage and temperature monitors
LEDs	Power LED, Ethernet LED, 5 wireless signal LED
Power options	Power over Ethernet: 8-30V DC Packaged with 24V DC 0.8A power adapter and passive PoE injector
Dimensions	140x140x56mm. Weight without packaging, adapters and cables: 265g
Max consumption	11W at 24V
Operating Temp	-30C .. +80C
OS	Level4 AP license
Package contains	SXT wireless device with integrated antenna, pole mounting bracket, mounting ring, Gigabit PoE injector, power adapter, quick setup guide
Certifications	FCC, CE, ROHS

TX/RX at MCS0	30dBm / -95dBm
TX/RX at MCS7	26dBm / -73dBm
TX/RX at 6Mbit	30dBm / -96dBm
TX/RX at 54Mbit	27dBm / -80dBm
Antenna	Dual pol. 90 deg, -35dB port to port isolation, 14dBi gain

SEXTANT G

Outdoor point to point solution

The SEXTANT is a 18dBi 5GHz antenna with a built in RB911 router. It has two polarizations to give you all benefits of 2x2 MIMO in 802.11n.

Inside is the high power RB911 dual chain wireless device (see separate brochure), with high performance, high output power wireless transmitter. It has a Gigabit Ethernet port, to fully utilise the benefit of 802.11n high speed wireless.

Easy to use and quick to deploy, SEXTANT is ideal for point to point links.



Frequencies	5.17 - 5.825 GHz
Gain	18dBi
VSWR	1.6:1
3 dB Beam-Width, H-Plane	16.8 °
3 dB Beam-Width, E-Plane, typ.	22.8 °
Polarization	Linear, Vertical and Horizontal
Port to Port Isolation	- 35 dB

Model	RB911G-5HPnD
Features	1 Ethernet, Gigabit, High power, Dual chain
CPU	Atheros AR9342 600MHz network processor
Memory	32MB DDR onboard memory
Data storage	onboard NAND memory chip
Ethernet	One Gigabit port with Auto-MDI/X
Wireless	Built in 5GHz 802.11a/n, 2x MMCX connectors
Extras	beeper, signal and status LEDs, voltage and temperature sensors
Expansion	-
Power options	PoE: 8-30V DC on Ether1 (Non 802.3af).
Dimensions	Ø250mm, height 90mm, 830g
Max consumption	11W at 24V
OS	MikroTik RouterOS, Level3 license (supports wireless CPE/PtP mode)

	RB911G-5HPnD
TX/RX at MCS0	30dBm / -96dBm
TX/RX at MCS7	24dBm / -78dBm
TX/RX at 6Mbit	30dBm / -96dBm
TX/RX at 54Mbit	27dBm / -80dBm
Frequency range	4900-5920MHz

QRT 5

High power integrated antenna

The QRT 5 is a rugged outdoor flat panel antenna, with a built in RouterBOARD. The device has a 23dBi antenna and a high power 5GHz wireless transmitter.

Inside is the high power RB911 dual chain wireless device (see separate brochure), with high performance, high output power wireless transmitter. It has a Gigabit Ethernet port, to fully utilise the benefit of 802.11n high speed wireless.

Easy to use and quick to deploy, QRT is ideal for point to point links.



Frequencies	4.9-5.875 GHz
Gain	23 ± 1 dBi
VSWR	1.37 : 1
3 dB Beam-Width, H-Plane	10.5°
3 dB Beam-Width, E-Plane, typ.	10.5°
Polarization	Dual, Vertical and horizontal
Port to Port Isolation	-50 dB
Cross polarization, min	-25 dB
Front to Back Ratio, min	35 dB

Model	QRT 5 (RB911G-5HPnD-QRT)
Features	1 Ethernet, Gigabit, High power, Dual chain
CPU	Atheros AR9342 600MHz network processor
Memory	64MB DDR onboard memory
Data storage	128MB NAND memory chip
Ethernet	One Gigabit port with Auto-MDI/X
Wireless	Built in 5GHz 802.11a/n (AR9342)
Extras	beeper, signal and status LEDs, voltage and temperature sensors
Expansion	-
Power options	PoE: 8-30V DC on Ether1 (Non 802.3af).
Unit dimensions	309x320x50mm
Max consumption	11W at 24V
OS	MikroTik RouterOS, Level4 license (supports wireless CPE/PtP and AP mode)
Included	QRT wireless device, precision mounting bracket, U bolts, pole clamp, screw kit, 24V 0.8A power adapter, Gigabit PoE injector

	TX power / RX sensitivity
TX/RX at MCS0	30dBm / -96dBm
TX/RX at MCS7	24dBm / -78dBm
TX/RX at 6Mbit	30dBm / -96dBm
TX/RX at 54Mbit	27dBm / -80dBm
Frequency range	4900-5920MHz

QRT 2

High power integrated antenna

The QRT 2 is a rugged outdoor flat panel antenna, with a built in RouterBOARD. The device has a 17dBi antenna and a super high power 2GHz wireless transmitter.

Inside is a new dual chain wireless device, with high performance, high output power wireless transmitter, and a Gigabit Ethernet port, to fully utilize the benefit of 802.11n high speed wireless.

Easy to use and quick to deploy, QRT is ideal for point to point links.



Frequencies	2.3-2.6 GHz
Gain	17dBi
VSWR	1.43 : 1
3 dB Beam-Width, H-Plane	22°
3 dB Beam-Width, E-Plane, typ.	22°
Polarization	Dual, Vertical and horizontal
Port to Port Isolation	-50 dB
Cross Polarization, min.	-25 dB
Front to Back Ratio, min.	30 dB

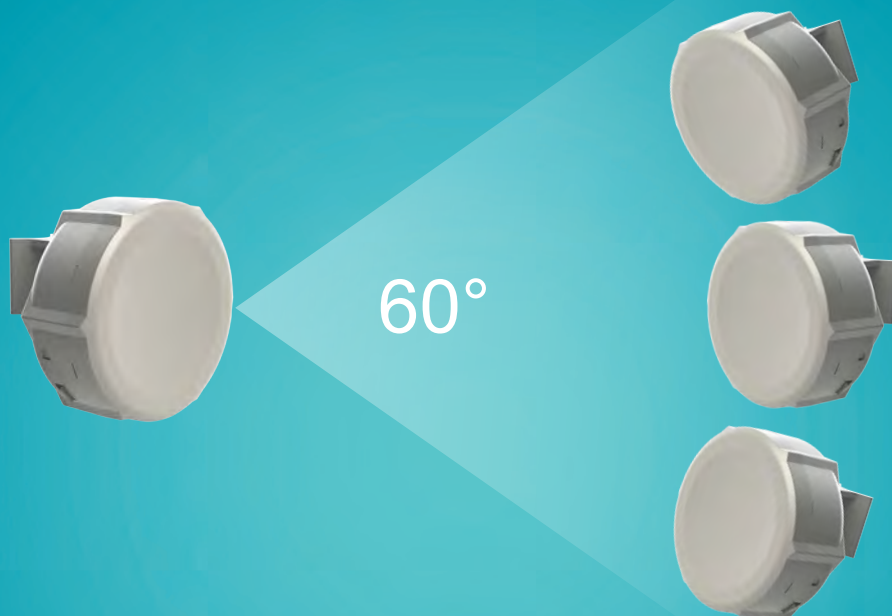
Model	QRT 2 (RBQRTG-2SHPnD)
Features	1 Ethernet, Gigabit, High power, Dual chain
CPU	Atheros AR7242 400MHz network processor
Memory	64MB DDR onboard memory
Data storage	128MB NAND memory chip
Ethernet	One Gigabit port with Auto-MDI/X
Wireless	Built in 2GHz 802.11b/g/n (AR9582)
Extras	beeper, signal and status LEDs, voltage and temperature sensors
Expansion	-
Power options	PoE: 8-30V DC on Ether1 (Non 802.3af).
Dimensions	Ø250mm, height 90mm, 830g
Max consumption	19W at 24V
OS	MikroTik RouterOS, Level4 license (supports wireless CPE/PtP and AP mode)
Included	QRT wireless device, precision mounting bracket, U bolts, pole clamp, screw kit, 24V 1.2A power adapter, Gigabit PoE injector

	TX power / RX sensitivity
TX/RX at MCS0	35dBm / -96dBm
TX/RX at MCS7	30dBm / -78dBm
TX/RX at 6Mbit	35dBm / -96dBm
TX/RX at 54Mbit	31dBm / -80dBm
Frequency range	2300-2600MHz

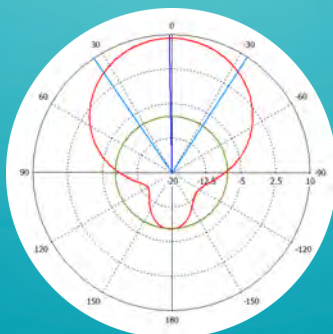
SXT 2GHz

SXT is a low cost, high speed 2GHz outdoor wireless device, now also available as a high power Gigabit, or as a low cost Lite version. SXT can be used for point to point links, as a CPE for point to multipoint installations or even as an AP/Sector (G model) because of it's wide beamwidth antenna.

Complete with a ready to mount enclosure and built-in 10dBi antenna, the package contains everything you need to set it up in a matter of minutes.



60°



Approximately 60° beamwidth in all polarizations

Model	SXT G-2HnD	SXT Lite2
CPU	AR7242 400MHz	AR9344 600MHz
Memory	32MB DDR SDRAM onboard memory	64MB DDR2
Ethernet	10/100/1000 (Gigabit) Ethernet port L2MTU frame size up to 4076	10/100 Ethernet port
Wireless	Onboard dual chain 2GHz 802.11b/g/n .10kV ESD protection on each RF port	
Extras	Reset switch, beeper, USB 2.0 port, voltage and temperature monitors	Reset switch, beeper
LEDs	Power LED, Ethernet LED, 5 wireless signal LED	
Power	Power over Ethernet: 8-30V DC. Packaged with 24V DC 0.8A PSU and passive PoE injector	
Dimensions	140x140x56mm. Weight without packaging, adapters and cables: 265g	
Power consumption	Up to 7W	Up to 8W
Operating Temp	-30C .. +80C	
License	Level4 license (CPE, PtP or AP as sector)	Level 3 license (CPE or PtP modes)
Package contains	SXT wireless device with integrated antenna, pole mounting bracket, mounting ring, PoE injector, power adapter, quick setup guide	
Certifications	FCC, CE, ROHS	

	G-2HnD	Lite2
TX/RX at MCS0	32dBm / -95dBm	27dBm / -95dBm
TX/RX at MCS7	25dBm / -74dBm	22dBm / -77dBm
TX/RX at 6Mbit	32dBm / -96dBm	27dBm / -95dBm
TX/RX at 54Mbit	29dBm / -80dBm	23dBm / -80dBm
Antenna	Dual polarization 2GHz antenna, 10dBi, -18 dB port to port isolation, Beam-Width: H-Plane, E-Plane typ. 60°	



Groove 52HPn

2GHz / 5GHz outdoor unit

Our smallest outdoor series model - a fully featured wireless RouterBOARD powered by RouterOS. Weatherproof, durable and ready to use. It has one 10/100 Ethernet port with PoE support and a built in wireless radio. It has software selectable 2 or 5GHz wireless mode, and high 500mW output power!

With the Nv2 TDMA technology, up to 125Mbit aggregate throughput is possible! It has a built-in N-male connector, and pole attachment points, so you can attach it to an antenna directly, or use a standard antenna cable. LED signal indicators make it easy to install and align.

CPE or AP versions are available. Groove runs RouterOS with all it's features.

Model	52HPn	A-52HPn
CPU	AR9342 600Mhz	
Memory	64MB	64MB
Ethernet	One 10/100 Mbit/s Fast Ethernet port with Auto-MDI/X, L2MTU up to 2030	
Wireless	5 or 2GHz (software selectable) radio, N-male antenna connector	
Extras	Reset switch, Beeper, Voltage monitor, Temperature monitor	
LEDs	5 wireless signal LEDs, ethernet activity LED (configurable)	
Power	Passive 9-30V PoE only. 16KV ESD protection on RF port. Up to 0,19A at 24V (4.56W)	
Dimensions	177x44x44mm, 193g. Must be mounted with ethernet pointing down	
Operating temp.	-30C to +70C	
RouterOS	Level3 license (station or ptp)	Level4 license (AP, station or ptp)
Package contains	Groove unit, mounting loops, PoE injector, 24V power adapter	

	5GHz	2GHz
RX sensitivity 802.11a	-93 dBm @ 6Mbps to -77 dBm @ 54 Mbps	-93 dBm @ 6Mbps to -77 dBm @ 54 Mbps
RX sensitivity 802.11n	-93 dBm @ MCS0 20MHz to -76 dBm @ MCS7 40MHz	-93 dBm @ MCS0 20MHz to -76 dBm @ MCS7 40MHz
TX power 802.11a	27dBm @ 6Mbps to 22Bm @ 54 Mbps	27dBm @ 6Mbps to 24Bm @ 54 Mbps
TX power 802.11n	26dBm @ MCS0 to 22dBm @ MCS7	27dBm @ MCS0 to 23dBm @ MCS7
Frequency range	4900-5920MHz	2400MHz-2500MHz



Metal

Rugged outdoor device, 1.6W output power!

Completely waterproof, rugged, and super high powered. The serious outdoor wireless device. Fully sealed, industrial design metal case, powered by RouterBOARD and RouterOS.

It has a built-in N-male connector, and pole attachment points, so you can attach it to an antenna directly, or use a standard antenna cable. LED signal indicators make it easy to install and align.

Shipped complete with power injector, adapter and mounting kit. Available in two versions - 2GHz and 5GHz.

CPU	Atheros AR7241 400MHz network processor
Memory	64MB DDR SDRAM onboard memory
Ethernet	One 10/100 Mbit/s Fast Ethernet port with Auto-MDI/X, L2MTU up to 2030
Wireless	Wireless Built-in 5 or 2 GHz 1x1 MIMO, N-male connector,
Extras	Reset switch, Beeper, Voltage monitor, Temperature monitor
LEDs	5 wireless signal LEDs, ethernet activity LED (configurable)
Power options	Passive 8-30V PoE only. 16KV ESD protection on RF port
Consumption	Up to ~0,5A at 24V (11.5W)
Dimensions	177x44x44mm, 193g. Must be mounted with ethernet pointing down
Operating temperature	-30C to +70C
Operating system	MikroTik RouterOS Level4 license (station, point-to-point or AP modes)
Package contains	Metal SHPn unit, mounting loops, PoE injector, 24V power adapter

RX sensitivity	5SHPn model	802.11a: -93 dBm @ 6Mbps to -77 dBm @ 54 Mbps 802.11n: -93 dBm @ MCS0 to -71 dBm @ MCS7
	2SHPn model	802.11b/g: -93 dBm @ 6Mbps to -77 dBm @ 54 Mbps 802.11n: -92 dBm @ MCS0 to -72 dBm @ MCS7 40MHz
TX power	5SHPn model	802.11a: 31dBm @ 6Mbps to 27dBm @ 54 Mbps 802.11n: 30dBm @ MCS0 to 26dBm @ MCS7
	2SHPn model	802.11b/g: 32dBm @ 1-11/6Mbps to 29dBm @ 54 Mbps 802.11n: 32dBm @ MCS0 to 28dBm @ MCS7
Modulations		OFDM: BPSK, QPSK, 16 QAM, 64QAM DSSS: DBPSK, DQPSK, CCK

BaseBox

The BaseBox is an outdoor wireless device, based on our popular RB912 model, fitted with two SMA connectors for antennas, and a cable hood for protection against moisture. Also available are three additional places for antenna connectors, in case you wish to use the BaseBox miniPCIe slot for one more wireless interface to make a dual band device, or a 3G/4G modem.

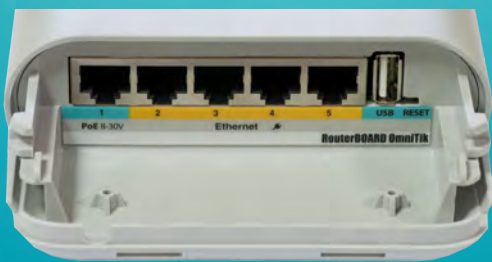
The case can be opened with one hand, and is protected against the elements. USB, Ethernet and a Grounding wire exits are provided on the bottom, behind a protective door. Two models are available - BaseBox 2 and BaseBox 5 (2 or 5GHz wireless, respectively).

Comes with a mounting loop for tower/pole mounting, and a separate DIN rail mount is also provided. Package also includes a PoE injector and power supply unit.



Model	BaseBox 5	BaseBox 2
Order code	RB912UAG-5HPnD-OUT	RB912UAG-2HPnD-OUT
Features	1 Ethernet, 1 miniPCIe, USB, Additional memory, Gigabit, High power, Dual chain, Outdoor case	
CPU	Atheros AR9342 600MHz network processor	
Memory	64MB DDR onboard memory	
Ethernet	One Gigabit port with Auto-MDI/X	
Wireless	Built in 5GHz 802.11a/n, 2x RP-SMA connectors	Built in 2GHz 802.11b/g/n, 2x RP-SMA connectors
Extras	beeper, signal and status LEDs, SIM slot (requires 3g miniPCIe card), voltage and temperature sensors	
Expansion	miniPCIe slot for 802.11 or 3G (using 3G disables the USB port), USB 2.0 port	
Power options	PoE: 8-30V DC on Ether1 (Non 802.3af). Consumption: 14W at 24V	
Dimensions	246x135x50mm; Weight: 390g	
OS	MikroTik RouterOS, Level4 license (supports wireless AP mode)	
Kit includes	RB912 outdoor unit, PSU, PoE injector, mounting loop, DIN rail mount	

	RB912UAG-5HPnD-OUT	RB912UAG-2HPnD-OUT
TX/RX at MCS0	30dBm / -96dBm	30dBm / -96dBm
TX/RX at MCS7	24dBm / -78dBm	24dBm / -78dBm
TX/RX at 6Mbit	30dBm / -96dBm	30dBm / -96dBm
TX/RX at 54Mbit	27dBm / -80dBm	27dBm / -80dBm
Frequency range	4900-5920MHz	2400MHz-2500MHz



OmniTik

OmniTik is a weatherproof outdoor AP with dual-polarized omni antennas - the perfect companion for our SXT, or for any other 5GHz 802.11a/n standard device. Weatherproof, durable and ready to use. It has five 10/100 Ethernet ports, PoE support and a built-in 400mW 802.11a/n wireless radio. It supports Nv2 TDMA technology with up to 200Mbit aggregate throughput.

LED signal indicators on it's back are fully customizable, show Ethernet activity or wireless signal - or any other information from RouterOS. The USB port gives the ability to connect a 3G modem or a storage drive.

The OmniTik UPA also features power output on it's ethernet ports. Ports 2-5 can power other PoE capable devices with the same voltage as applied to the unit. Less power adapters to worry about.

OmniTik U-5HnD and OmniTik UPA-5HnD	
CPU	Atheros AR7241 400MHz network processor
Memory	32MB DDR SDRAM onboard memory
Ethernet	Five 10/100 Mbit/s Fast Ethernet port with Auto-MDI/X, L2MTU up to 2030
Wireless	Wireless Built-in 5GHz 802.11a/n 2x2 MIMO
Antenna	Two 7.5dBi (+/-1dBi) omni with different polarities (ch0 horizontal, ch1 vertical)
Extras	Reset switch, Beeper, USB 2.0 port, Voltage monitor, Temperature monitor
LEDs	5 programmable LEDs (Ethernetactivity by default), one power LED
Power options	Passive 9-30V PoE only. 16KV ESD protection on RF port
Dimensions	177x44x44mm, 518g
Operating temp.	-30C to +70C
Operating system	MikroTik RouterOS v5, Level4 license
Package contains	OmniTik unit, mounting bracket, hose clamp, PoE injector, 24V 2.5A PSU
OmniTik UPA-5HnD	
Power Output	Supports PoE output on ports 2-5. Max current 500mA per port, 1A per port with software upgrade

RX sensitivity	802.11a: -96 dBm @ 6Mbps to -80 dBm @ 54 Mbps 802.11n: -96 dBm @ MCS0 to -77 dBm @ MCS7
TX power	802.11a: 26dBm @ 6Mbps to 22dBm @ 54 Mbps 802.11n: 25dBm @ MCS0 to 19dBm @ MCS7
Modulations	OFDM: BPSK, QPSK, 16 QAM, 64QAM DSSS: DBPSK, DQPSK, CCK

RB411

Perfect for building custom AP and CPE devices

The RB411 are our low cost customizable routers with one Ethernet and one miniPCI slot. The new RB411L series are lower cost, and don't have some of the ports present on other RB411 devices. There are eight models in the RB411 series.

Use this device in an outdoor case for a AP/CPE device, or a point to point wireless link installation. The miniPCI slot allows you to choose your own preferred wireless card model.

Data storage	NAND memory chip
Ethernet	One 10/100 Mbit/s Ethernet port with Auto-MDI/X
miniPCI	One MiniPCI Type IIIA/IIIB slot
Extras	Reset switch, beeper
LEDs	Power, NAND activity, 5 user LEDs
Power options	PoE: 8-28V DC on Ether1 (Non 802.3af).
Dimensions	105 mm x 105 mm, Weight: 105g
Power consumption	1,4W board only, 10W available to miniPCI card
Operating System	MikroTik RouterOS

Feature / Model	411L	411	411U	411AR	411AH	411UAHL	411GL	411UAHR
CPU MHz	300	300	300	300	680	680	680	680
RAM MB	32	32	64	32	64	64	64	64
Power jack	-	yes	yes	yes	yes	yes	yes	yes
Serial port	-	yes	yes	yes	yes	-	-	yes
USB	-	-	yes	-	-	yes	yes	yes
miniPCI express	-	-	yes	-	-	-	-	yes
Integrated wireless	-	-	-	2.4GHz	-	-	-	2.4GHz
Gigabit LAN	-	-	-	-	-	-	yes	-
RouterOS License	L3	L3	L4	L4	L4	L4	L4	L4

RB411UAHR

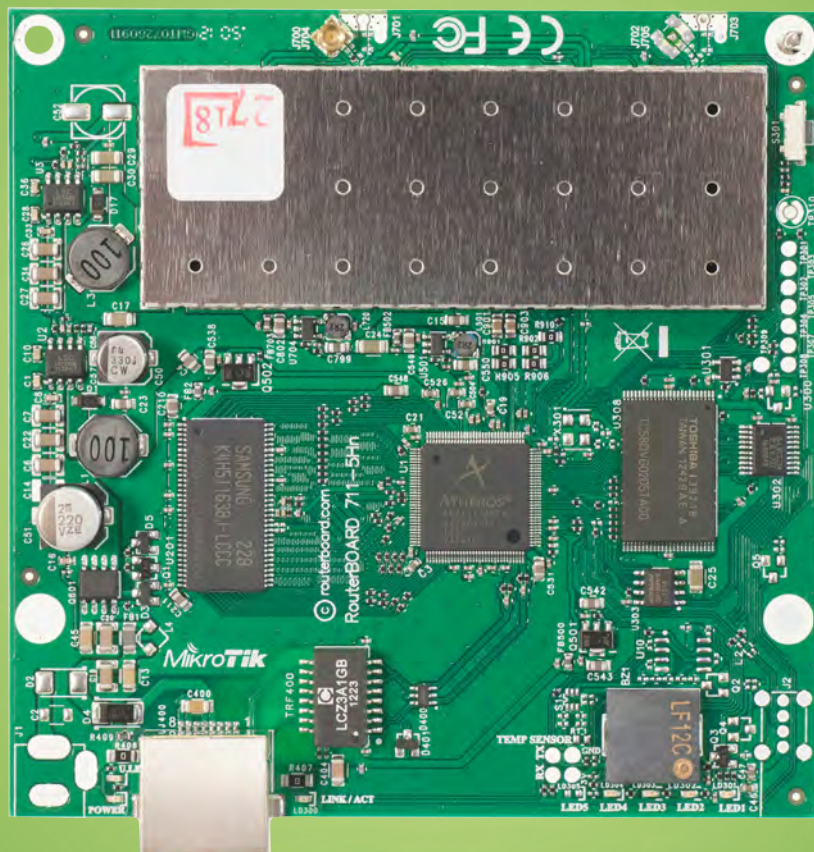


RB711

Perfect for building low cost CPE devices

The RB711 is a small CPE type RouterBOARD wireless router with an integrated wireless card. Two models are available - for 5GHz and 2GHz bands.

RB711 includes RouterOS - the operating system, which can be a router, firewall, bandwidth manager, a CPE and more, all at the same time. It has built in 16kV ESD protection on the RF port.



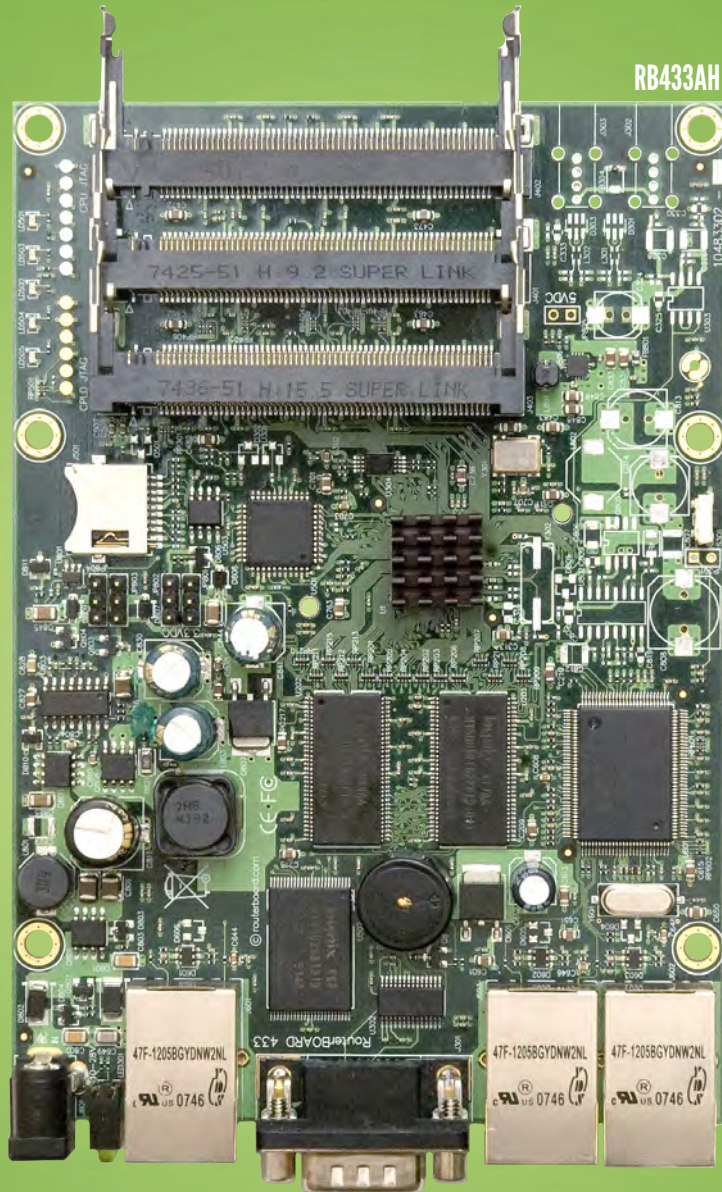
CPU	Atheros AR7241 400MHz network processor
Memory	DDR SDRAM onboard memory
Data storage	onboard NAND memory chip
Ethernet	One 10/100 Mbit/s Fast Ethernet port with Auto-MDI/X
Wireless	Built in 2GHz AR9283 802.11b/g/n card 1 MMCX connector
Extras	Reset switch, Beeper
LEDs	Power, NAND activity, 5 user LEDs
Power options	PoE: 8-30V DC on Ether1 (Non 802.3af).
Dimensions	10.5 cm x 10.5 cm (4.13 in x 4.13 in) Weight: 67g
Power consumption	Up to 4.5W at 18V full load (0.245A)
Operating System	MikroTik RouterOS, Level3 license

RB711-2Hn

RX sensitivity	802.11b/g: -92 dBm @ 6Mbps to -75 dBm @ 54 Mbps 802.11n: -92 dBm @ MCS0 to -71 dBm @ MCS7 40MHz
TX power	802.11b/g: 27dBm @ 6Mbps to 24dBm @ 54 Mbps 802.11n: 27dBm @ MCS0 to 20dBm @ MCS7
Modulations	OFDM: BPSK, QPSK, 16 QAM, 64QAM DSSS: DBPSK, DQPSK, CCK

RB711-5Hn

RX sensitivity	802.11a: -92 dBm @ 6Mbps to -76 dBm @ 54 Mbps 802.11n: -92 dBm @ MCS0 to -73 dBm @ MCS7 40MHz
TX power	802.11a: 22dBm @ 6Mbps to 19dBm @ 54 Mbps 802.11n: 22dBm @ MCS0 to 15dBm @ MCS7
Modulations	OFDM: BPSK, QPSK, 16 QAM, 64QAM DSSS: DBPSK, DQPSK, CCK



RB433

Perfect for building custom AP devices

The RB433 is a multi port device. Use it in an outdoor case for a sector AP installation, or for a wireless backhaul. Three ports give you plenty of configuration options for many wireless scenarios.

New to the RB433 family is the RB433L series - a light version with only the most essential features and available at a lower cost.

We currently have six different models in the RB433 series.

CPU	Atheros AR7130/ AR7161
Memory	DDR SDRAM onboard memory
Boot loader	RouterBOOT
Data storage	NAND memory chip
Ethernet	Three 10/100 Mbit/s Ethernet ports with Auto-MDI/X
miniPCI	Three MiniPCI Type IIIA/IIIB slots
Extras	Reset switch, beeper, voltage monitor
LEDs	Power, NAND activity, 5 user LEDs
Power options	PoE: 8-28V DC on Ether1 (Non 802.3af), Power jack (8-28V DC)
Dimensions	105 mm x 154 mm, Weight: 137g
Power consumption	2W board only, 14W available to minIPCI cards
Operating System	MikroTik RouterOS

Feature / Model	433UL	433	433AH	433UAHL	433UAH	433GL
CPU Mhz	400Mhz	300Mhz	680Mhz	680Mhz	680Mhz	680Mhz
RAM MB	64MB	64MB	128MB	128MB	128MB	128MB
Serial port	-	yes	yes	-	yes	-
USB	yes	-	-	yes	yes, two	yes
Gigabit LAN	-	-	-	-	-	Yes
RouterOS License	L4	L4	L4	L4	L4	L4

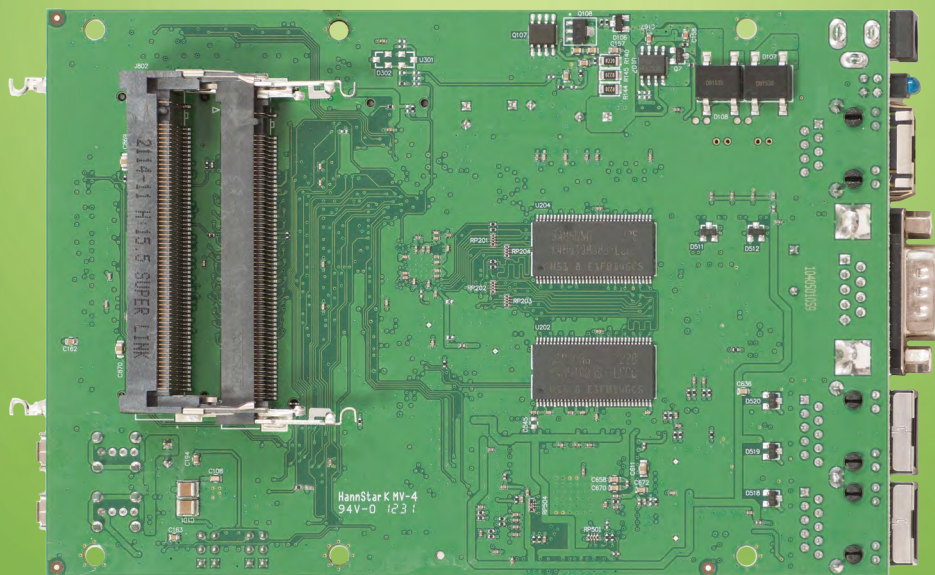
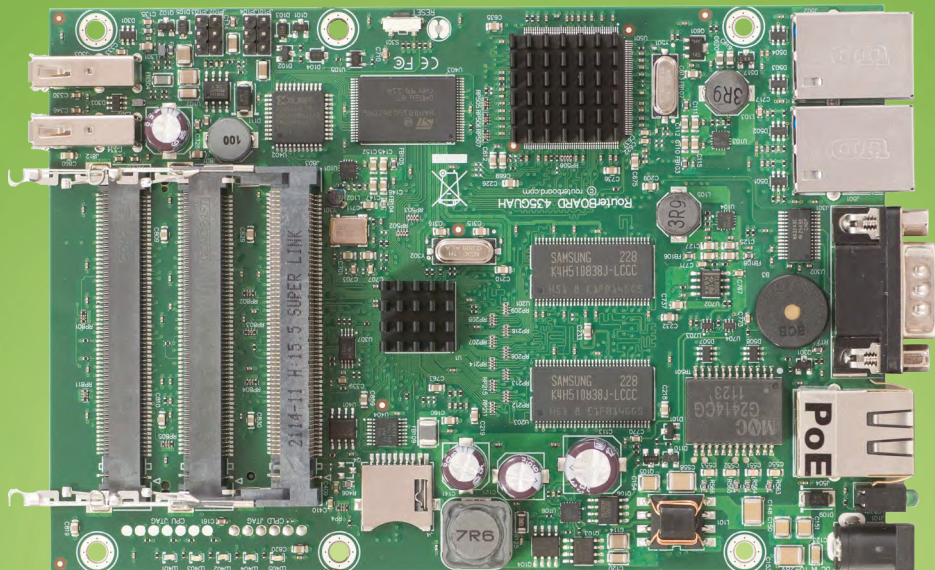
RB435G

Five miniPCI slots and three Gigabit Ethernet ports give you enough connectivity options to use the RB435G as the central part of your network. Now with Gigabit ports, to properly utilize all the speed 802.11n with Nv2 wireless.

Five miniPCI slots to be used for four sectors and a backbone, or any other configuration you need.

The two USB 2.0 ports can be used for extending storage, adding a 3G wireless modem for backup connectivity, for a mobile installation or all together.

The RB435G comes with a 680MHz Atheros CPU and is preinstalled with a Level5 RouterOS license.



CPU	Atheros AR7161 680MHz
Memory	256MB DDR SDRAM onboard memory
Boot loader	RouterBOOT
Data storage	NAND memory chip and microSD slot for expansion
Ethernet	Three 10/100/1000 Gigabit Ethernet ports with Auto-MDI/X
miniPCI	Five miniPCI Type IIIA/IIIB slots
Expansion	Two USB 2.0 ports with powering (5V 1A supply)
Extras	Reset switch, beeper, temperature, voltage and current monitors
Serial port	One DB9 RS232C asynchronous serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	PoE: 8-28V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	105 mm x 154 mm, Weight: 153g
Power consumption	~4.5W without extension cards
Output to cards	19W without any cooling, up to 40W with active cooling
Operating System	MikroTik RouterOS, L5 license

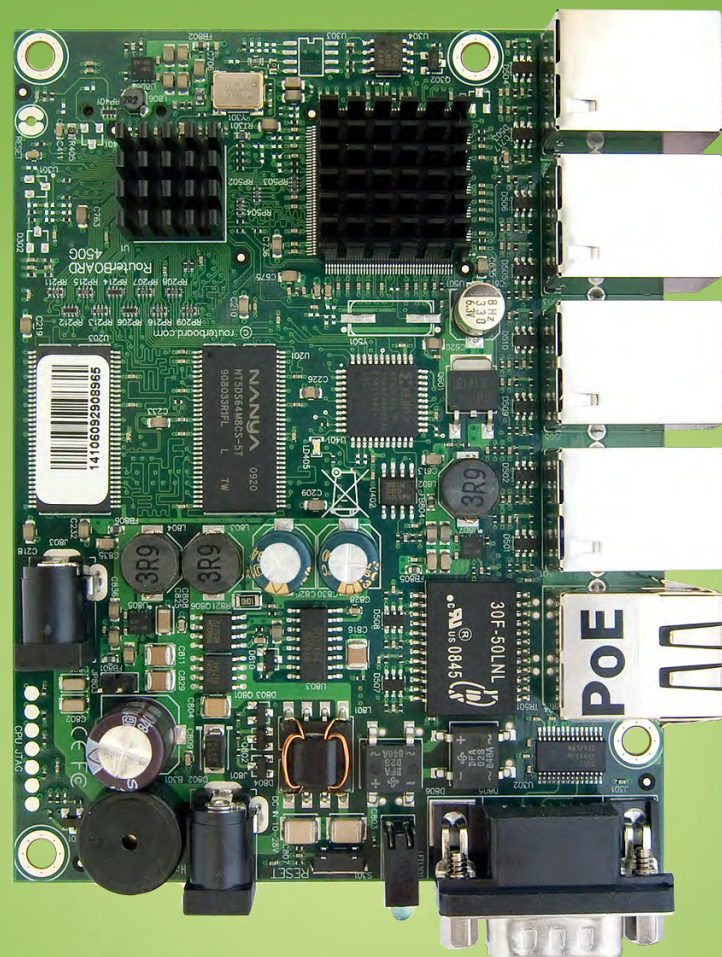
RB450G

The RB450G is a five port Gigabit ethernet router. Comparing to the RB450, the RB450G not only adds Gigabit speed capability, but also 256MB of RAM, a faster CPU and a microSD card slot for file storage.

The device is powered by a fast AR7161 680MHz Atheros CPU, and also includes a temperature sensor and voltage monitor.

RB450G includes RouterOS - the operating system, which will turn this powerful system into a highly sophisticated router, firewall or bandwidth manager.

CPU	AR7161 680MHz
Memory	256MB DDR SDRAM
Data storage	NAND memory chip, microSD slot on back side
Ethernet	Five 10/100/1000 Mbit/s Gigabit ports with Auto-MDI/X, Hardware switch chip and port mirror support
Extras	Reset switch, beeper, voltage and temperature monitors
Serial port	One DB9 RS232C asynchronous serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	PoE: 8-28V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	90mm x 115mm, 105 g
RouterOS License	Level5



RB450

The RB450 is a five port ethernet router with serial port and power jack for OEM applications.

The RB450 includes a switch chip, which means that it's five ports can be combined to function as a switch increasing port to port communication speed.

The RB450 series are your perfect wired router for installations where wireless interfaces are not required.



CPU	AR7130 300MHz
Memory	32MB DDR SDRAM
Data storage	NAND memory chip
Ethernet	Five 10/100 Mbit/s Ethernet ports with Auto-MDI/X, Hardware switch chip and port mirror support
Extras	Reset switch, beeper, voltage and temperature monitors
Serial port	One DB9 RS232C asynchronous serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	PoE: 8-28V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	90mm x 115mm, 105 g
RouterOS License	Level5

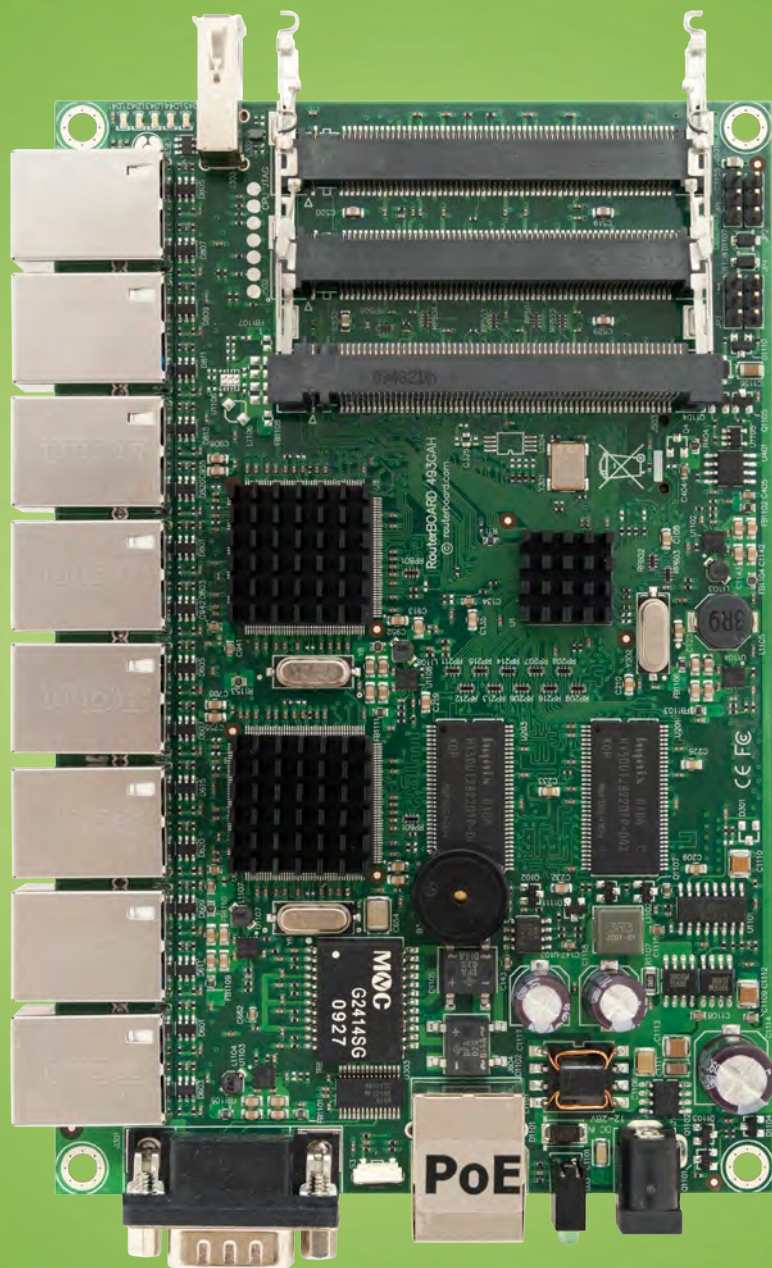
RB493

The RB493 has nine ethernet ports and three miniPCI slots, it also has a switch chip, so the ethernet ports of your choice can be grouped together to make it act as a switch.

RB493 includes RouterOS - the operating system, which will turn this powerful system into a highly sophisticated router, firewall or bandwidth manager.

With nine Ethernet ports, and three miniPCI slots, this is our most versatile RouterBOARD model.

The RB493AH model includes the higher speed Atheros 680MHz CPU, more memory, and a Level5 license for more a simultaneous tunnel interfaces and hotspot users and RB493G adds a Gigabit port and a USB port.



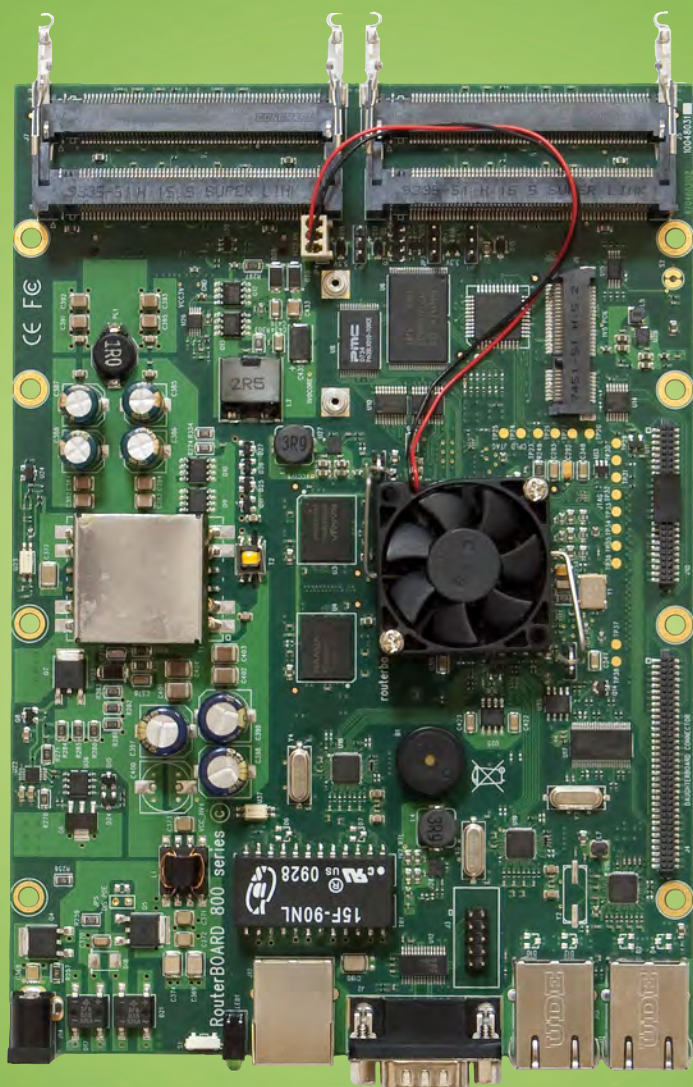
Model	RB493	RB493AH	RB493G
CPU	AR7130 300MHz	AR7161 680MHz	AR7161 680MHz
RAM	64MB	128MB	128MB
External storage	-	-	microSD
Ethernet	Nine 10/100 Mbit/s		Nine 10/100/1000 Gbit/s
miniPCI	Three miniPCI slots		
Extras			1x unpowered USB 2.0 port, temperature and voltage sensors
Serial port	One DB9 RS232C asynchronous serial port		
LEDs	Power, NAND activity, 5 user LEDs		
Power options	PoE: 8-28V DC on Ether1 (Non 802.3af). Jack: 8-30V DC		
Dimensions	105mm x 160mm, 189 grams		
Consumption	~3W without extension cards, maximum – 16 W		
License	Level4 license	Level5 license	

RB800

The RB800 is an advanced high performance wireless platform. It has four miniPCI slots, three Gigabit Ethernet ports, two daughterboard connectors, a miniPCI-e slot and a compact flash slot.

The two daughterboard connectors allow you to expand the number of wired and wireless ports, and the new high power CPU is capable of supporting them all. You can use various daughterboards to expand the number of interfaces on this device - RB502 and RB604 are available separately.

Combined with RouterOS - RB800 is the most powerful and sophisticated wireless router, firewall and bandwidth manager. With many expansion options. Our top of the line wireless device.



CPU	MPC8544 800MHz
Memory	256MB DDR2 SDRAM onboard memory
Boot loader	RouterBOOT
Data storage	NAND memory chip, CF slot on back
Ethernet	Three 10/100/1000 Mbit/s Ethernet ports with Auto-MDI/X
miniPCI	4 x miniPCI, 1 x miniPCI-e
Expansion	PCI daughterboard port
Extras	Reset switch, beeper, 4x fan headers, voltage and temperature sensors
Serial port	One DB9 RS232C asynchronous serial port, One serial port header
LEDs	Power, 1x User LED
Power options	Power over Ethernet: 36-56V DC (including power over datalines) Power jack: 10-56V DC
Dimensions	14 cm x 20 cm (5.51 in x 7.87 in), 285 g
Operating System	MikroTik RouterOS, Level6 license

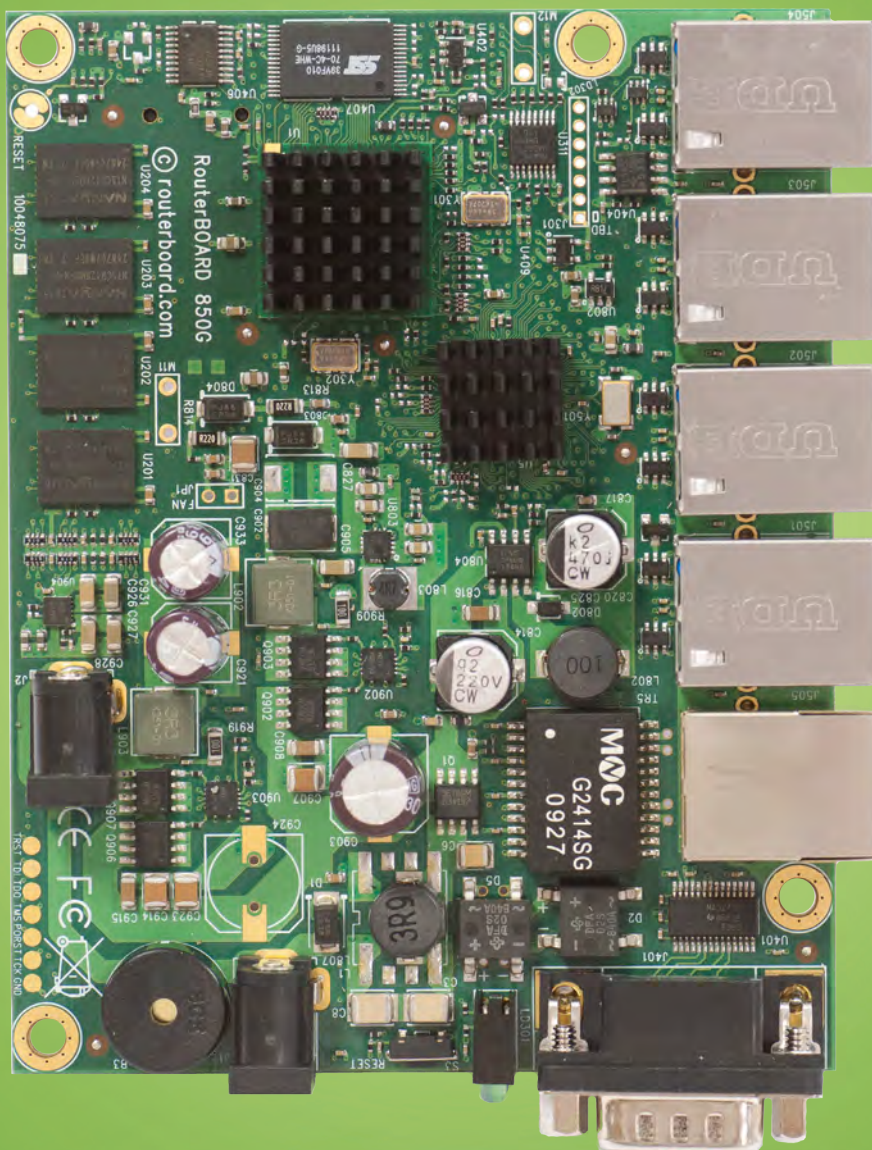
RB850Gx2

The RB850Gx2 is a five port Gigabit ethernet router. Comparing to the RB450G, the RB850Gx2 is much faster, with a dual core CPU, yet it still retains the same form factor, and will fit into the same enclosures.

The device is powered by a 400MHz P1023 PPC CPU, and also includes a temperature sensor and voltage monitor.

The RB850Gx2 is powered by RouterOS - the operating system, which will turn this powerful system into a highly sophisticated router, firewall or bandwidth manager.

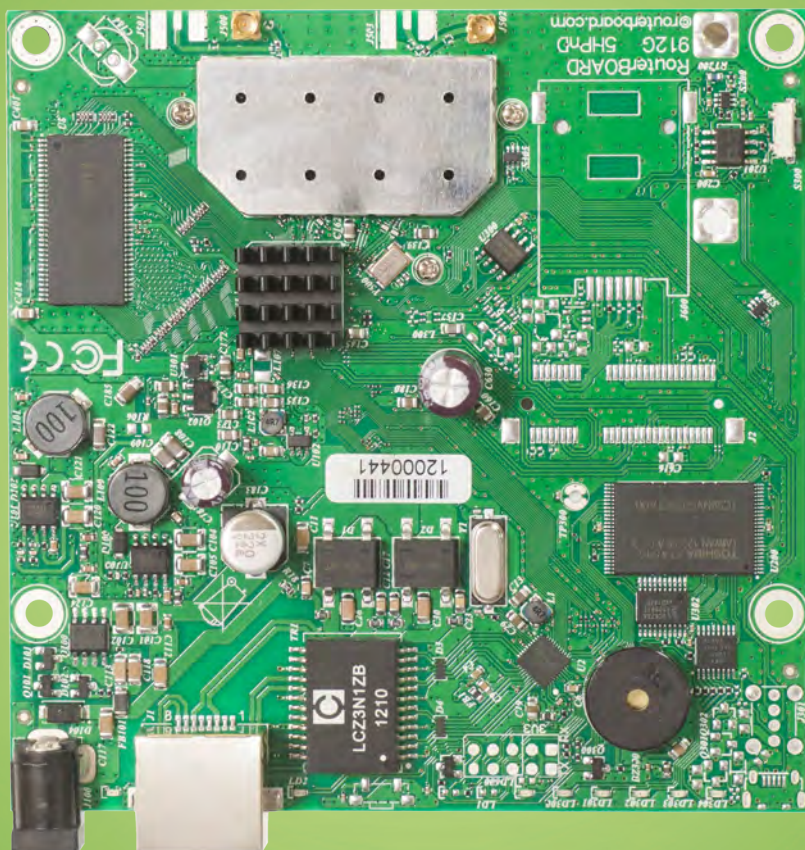
Model	RB850Gx2
CPU	P1023 400MHz
Memory	512MB DDR3 RAM
Data storage	128MB NAND memory chip, microSD slot
Ethernet	Five 10/100/1000 Mbit/s Gigabit ports with Auto-MDI/X, Hardware switch chip and port mirror support
Extras	Reset switch, beeper, voltage and temperature monitors
Serial port	One DB9 RS232C asynchronous serial port
LEDs	Power, NAND activity, 5 user LEDs
Power options	PoE: 8-28V DC on Ether1 (Non 802.3af). Jack: 8-30V DC
Dimensions	90mm x 115mm, 105 g
RouterOS License	Level5



RB911G

The RB911 is a small wireless router with an integrated high power wireless card. Both 2GHz and 5GHz models are available. The Gigabit port helps to utilize the full potential of 802.11n wireless speeds.

The integrated wireless card is capable of up to 1000mW output power. It has built in 16kV ESD protection on both the Ethernet and the MMCX ports.



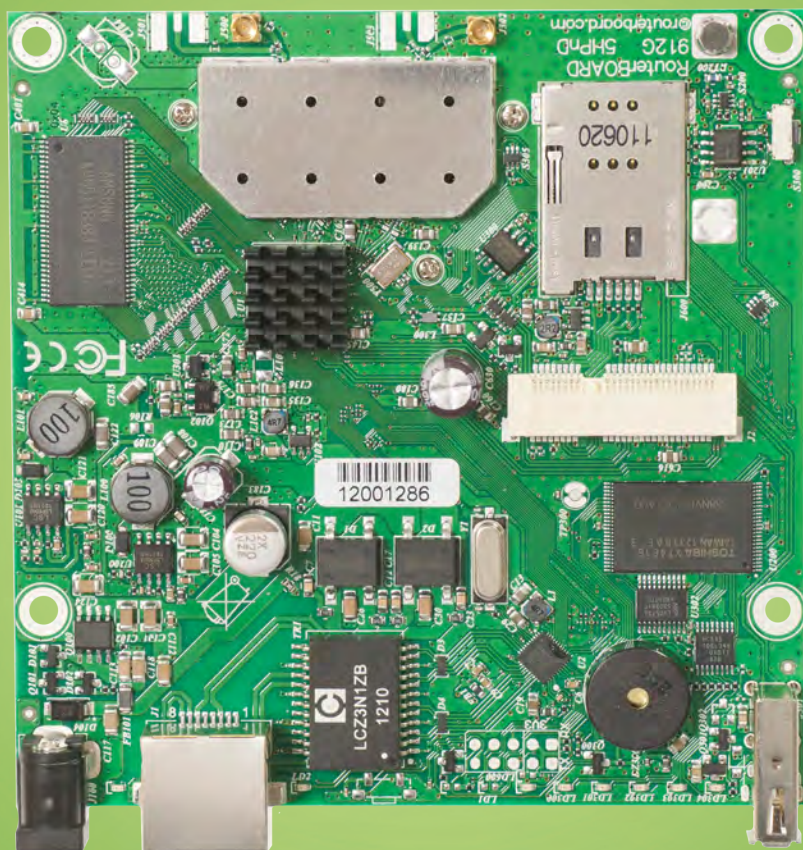
Model	RB911G-5HPnD	RB911G-2HPnD
Features	1 Ethernet, Gigabit, High power, Dual chain	
CPU	Atheros AR9342 600MHz network processor	
Memory	32MB DDR onboard memory	
Data storage	onboard NAND memory chip	
Ethernet	One Gigabit port with Auto-MDI/X	
Wireless	Built in 5GHz 802.11a/n, 2x MMCX connectors	Built in 2GHz 802.11b/g/n, 2x MMCX connectors
Extras	beeper, signal and status LEDs, voltage and temperature sensors	
Expansion	-	
Power options	PoE: 8-30V DC on Ether1 (Non 802.3af).	
Dimensions	105x105mm; Weight: 67g	
Max consumption	11W at 24V	
OS	MikroTik RouterOS, Level3 license (supports wireless CPE/PtP mode)	

	RB911G-5HPnD	RB911G-2HPnD
TX/RX at MCS0	30dBm / -96dBm	30dBm / -96dBm
TX/RX at MCS7	24dBm / -78dBm	24dBm / -78dBm
TX/RX at 6Mbit	30dBm / -96dBm	30dBm / -96dBm
TX/RX at 54Mbit	27dBm / -80dBm	27dBm / -80dBm
Frequency range	4900-5920MHz	2400MHz-2500MHz

RB912

The RB912 is a small wireless router with an integrated high power wireless card and an additional miniPCIe slot for 802.11 wireless, or 3G card. Both 2GHz and 5GHz models are available. The Gigabit port helps to utilize the full potential of 802.11n wireless speeds.

The integrated wireless card is capable of up to 1000mW output power. It has built in 16kV ESD protection on both the Ethernet and the MMCX ports.



Model	RB912UAG-5HPnD	RB912UAG-2HPnD
Features	1 Ethernet, 1 miniPCIe, USB, Additional memory, Gigabit, High power, Dual chain	
CPU	Atheros AR9342 600MHz network processor	
Memory	64MB DDR onboard memory	
Data storage	onboard NAND memory chip	
Ethernet	One Gigabit port with Auto-MDI/X	
Wireless	Built in 5GHz 802.11a/n, 2x MMCX connectors	Built in 2GHz 802.11b/g/n, 2x MMCX connectors
Extras	beeper, signal and status LEDs, SIM slot (requires 3g miniPCIe card), voltage and temperature sensors	
Expansion	miniPCIe slot for 802.11 or 3G (using 3G disables the USB port), USB 2.0 port	
Power options	PoE: 8-30V DC on Ether1 (Non 802.3af).	
Dimensions	105x105mm; Weight: 67g	
Max consumption	14W at 24V	
OS	MikroTik RouterOS, Level4 license (supports wireless AP mode)	

	RB912UAG-5HPnD	RB912UAG-2HPnD
TX/RX at MCS0	30dBm / -96dBm	30dBm / -96dBm
TX/RX at MCS7	24dBm / -78dBm	24dBm / -78dBm
TX/RX at 6Mbit	30dBm / -96dBm	30dBm / -96dBm
TX/RX at 54Mbit	27dBm / -80dBm	27dBm / -80dBm
Frequency range	4900-5920MHz	2400MHz-2500MHz

R5SHPn

The new 5GHz super high power wireless card for long range links and powerful access points. This is the professional choice for reaching the last mile. 800mW transmit power will give you the ability to reach even further than before. Up to 125Mbit throughput is possible with this device!

The card features built-in LED indicators for wireless mode, connection status (connected, searching, disabled), TX and RX activity and wireless signal strength - just looking at the card will help with installation and alignment.

The card comes with a preinstalled industrial grade heatsink, one MMCX connector and nine LED indicator lights.



802.11a	RX Sensitivity	TX Power
6Mbit	-93	29dBm
24Mbit	-77	27dBm
36Mbit	-77	27dBm
48Mbit	-77	27dBm
54Mbit	-77	25dBm
802.11n		
MCS0 20MHz	-93	28dBm
MCS0 40MHz	-89	29dBm
MCS7 20MHz	-74	24dBm
MCS7 40MHz	-71	24dBm

Specifications	
Chipset	AR9220
Frequency range	4800-6075Mhz
Standards	802.11a/n
Max output power	800mW
Format	miniPCI
Dimensions	60x60x19mm (incl. heatsink)
Connectors	1x MMCX (single chain)
Features	9 LED indicators, ESD protection
Temperature	Starting -5C to +65C (23 to 149F) Operating -30C to +65C (-22 to 149F)
Power consumption	Up to 10W at maximum power

R2SHPn

The new 2GHz super high power wireless card for long range links and powerful access points. This is the professional choice for reaching the last mile. 1.6W transmit power will give you the ability to reach even further than before. Up to 125Mbit throughput is possible with this device!

The card features built-in LED indicators for wireless mode, connection status (connected, searching, disabled), TX and RX activity and wireless signal strength - just looking at the card will help with installation and alignment.

The card comes with a preinstalled industrial grade heatsink, one MMCX connector and nine LED indicator lights.



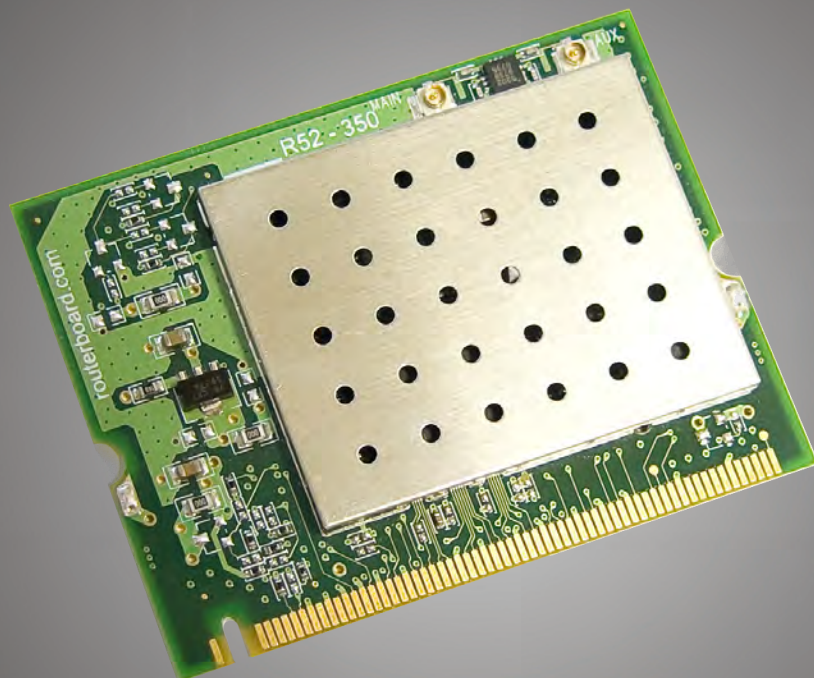
802.11b	RX Sensitivity	TX Power
1Mbit	-93	32dBm
11Mbit	-77	30dBm
802.11g	RX Sensitivity	TX Power
6Mbit	-93	32dBm
54Mbit	-77	29dBm
802.11n		
MCS0 20MHz	-93	32dBm
MCS0 40MHz	-93	31dBm
MCS7 20MHz	-74	28dBm
MCS7 40MHz	-72	27dBm

Specifications	
Chipset	AR9223
Frequency range	2.192-2.539MHz
Standards	802.11b/g/n
Max output power	1.6W
Format	miniPCI
Dimensions	60x60x19mm (incl. heatsink)
Connectors	1x MMCX (single chain)
Features	9 LED indicators, ESD protection
Temperature	Starting -5C to +65C (23 to 149F) Operating -30C to +65C (-22 to 149F)
Power consumption	Up to 10W at maximum power

R52H

R52H is a 350mW 802.11abg wireless card which uses the same reliable Atheros AR5414 chipset as the regular R52. It is the logical choice for use in combination with RouterOS and RouterBOARD because of its high compatibility and reliability.

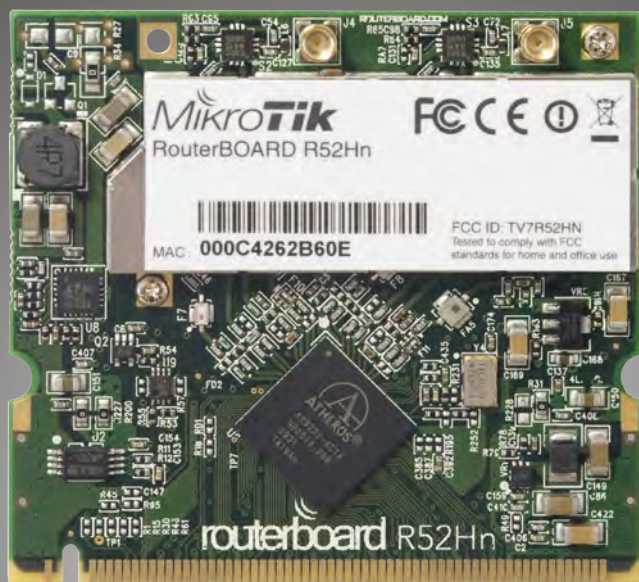
To further increase the range and speed of your wireless links, use it together with the MikroTik proprietary NStreme protocol, making your MikroTik RouterBOARD system complete.



Chipset:	Atheros AR5414
Standards:	IEEE802.11a, IEEE802.11b, IEEE802.11g
Media Access:	CSMA/CA with ACK architecture 32-bit MAC
Security:	Hardware 64/128 bit WEP, TKIP and AES-CCM encryption, WPA, WPA2, 802.1x
Modulation:	802.11b+g: DSSS, OFDM for data rate >30Mbps 802.11a: OFDM
Connectors:	Two U.fl connectors
Certifications:	FCC, EC
Powering:	3.3V +/- 10% DC; 800mA max (600mA typ.)
Frequencies: 802.11b/g	2.192 – 2.507 (5 MHz step); 2.224 – 2.539 (5MHz step)
Frequencies: 802.11a	4.920 – 6.100 (5 MHz step)
Operating temperature	-20 .. +70 C
Standard	Output power / Receive Sensitivity
802.11a	24dBm / -90dBm @ 6Mbps 19dBm / -70dBm @ 54Mbps
802.11b	25dBm / -92dBm @ 1Mbps 25dBm / -87dBm @ 11Mbps
802.11g	25dBm / -90dBm @ 6Mbps 20dBm / -70dBm @ 54Mbps

R52Hn

Leading 802.11a/b/g/n performance in both 2GHz and 5GHz bands, supporting up to 300Mbps physical data rates and up to 200Mbps of actual user throughput on both the uplink and downlink. 802.11n in your Wireless device provides higher efficiency for everyday activities such as local network file transfers, Internet browsing, and media streaming. R52Hn has a high power transmitter, bringing you even more range.



- Dual band IEEE 802.11a/b/g/n standard
- Output Power of up to 25dBm @ a/g/n Band
- Support for up to 2x2 MIMO with spatial multiplexing
- Four times the throughput of 802.11a/g
- Atheros AR9220, chipset
- High Performance (up to 300Mbps physical data rates and 200Mbps of actual user throughput) with Low Power Consumption
- 2 X MMCX Antenna Connector
- Modulations:
 - OFDM: BPSK, QPSK, 16 QAM, 64QAM
 - DSSS: DBPSK, DQPSK, CCK
- Operating temperatures: -50°C to +60°C
- Idle power consumption 0.4W
- Max power consumption 7W
- MiniPCI IIIA+ design (3mm longer than MiniPCI IIIA)
- 1.5mm heatsink, 3mm RF shield thickness
- ±10KV ESD protection on RF ports

802.11b	RX Sensitivity	TX Power
1Mbit	-93	24
11Mbit	-93	24
802.11g		
6Mbit	-94	25
54Mbit	-81	22
802.11n 2.4GHz		
MCS0 20MHz	-94	25
MCS0 40MHz	-92	24
MCS7 20MHz	-78	21
MCS7 40MHz	-75	20

802.11a	RX Sensitivity	TX Power
6Mbit	-97	25
54Mbit	-80	21
802.11n 5GHz		
MCS0 20MHz	-97	24
MCS0 40MHz	-92	22
MCS7 20MHz	-77	18
MCS7 40MHz	-74	17



R52N-m

The RouterBOARD R52n miniPCI network adapter provides leading 802.11a/b/g/n performance in both 2GHz and 5GHz bands, supporting up to 300Mbps physical data rates and up to 200Mbps of actual user throughput on both the uplink and downlink. Adding Wireless N to your Wireless device, it provides higher efficiency for everyday activities such as local network file transfers, Internet browsing, and media streaming.

- Dual band IEEE 802.11a/b/g/n standard
- Output Power of up to 25dBm
- Support for up to 2x2 MIMO with spatial multiplexing
- Four times the throughput of 802.11a/g
- Atheros AR9220 chipset
- High Performance (up to 300Mbps physical data rates and 200Mbps of actual user throughput) with Low Power Consumption
- 2 X MMCX Antenna Connector
- Modulations:
OFDM: BPSK, QPSK, 16 QAM, 64QAM
DSSS: DBPSK, DQPSK, CCK
- Operating temperatures: -20°C to +60°C
- Power consumption MAX 2.4W

802.11b	RX Sensitivity	TX Power
1Mbit	-95/-94	23
11Mbit	-92	23
802.11g		
6Mbit	-95/-94	25
54Mbit	-80	21
802.11n 2.4GHz		
MCS0 20MHz	-95/-94	23
MCS0 40MHz	-91	21
MCS7 20MHz	-77	20
MCS7 40MHz	-74	20

802.11a	RX Sensitivity	TX Power
6Mbit	-97/-95	21
54Mbit	-80/-79	19
802.11n 5GHz		
MCS0 20MHz	-97/-95	21/19
MCS0 40MHz	-93/-91	19
MCS7 20MHz	-78/-76	16
MCS7 40MHz	-75/-73	13

Data Rates

802.11b	
	11Mbps; 5.5Mbps; 2Mbps; 1Mbps
802.11a/g	
	54Mbps; 48Mbps; 36Mbps; 24Mbps; 18Mbps; 12Mbps; 9Mbps; 6Mbps
802.11n	
20MHz	1Nss: 65Mbps @ 800GI, 72.2Mbps @ 400GI (Max.) 2Nss: 130Mbps @ 800GI, 144.4Mbps @ 400GI (Max.)
40MHz	1Nss: 135Mbps @ 800GI, 150Mbps @ 400GI (Max.) 2Nss: 270Mbps @ 800GI, 300Mbps @ 400GI (Max.)

R11e

High power wireless cards in miniPCI-e format. Ideally suited for the new RB912 series, RB800 or our new miniPCIe adapter card - RB14e/ RB14eU.

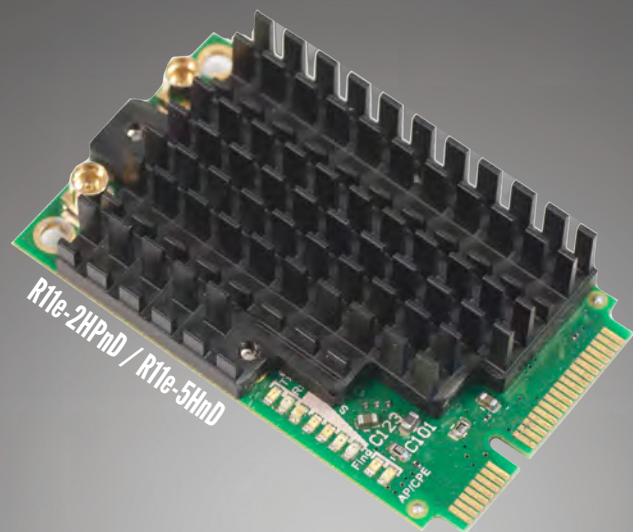
The card features built-in LED indicators for wireless mode, connection status (connected, searching, disabled), TX and RX activity and wireless signal strength - just looking at the card will help with installation and alignment.

Three models are available:

R11e-2HnD (2GHz, uFL connector, small heatsink)

R11e-2HPnD (2GHz, MMCX, high output power, larger heatsink)

R11e-5HnD (5GHz, MMCX, larger heatsink)



Model:	2HnD	2HPnD	5HnD
Chipset	AR9580		
Frequency range	2312-2732 MHz		4920-5920MHz
Standards	802.11b/g/n	802.11b/g/n	802.11a/n
Max output power	800mW	1000mW	500mW
Format	miniPCIe		
Dimensions	51x30x6mm	51x30x13mm	51x30x13mm
Connectors	2x uFL	2x MMCX	2x MMCX
Features	9 LED indicators, ESD protection		
Temperature	Starting -5C to +65C; Operating -30C to +65C		
MAX power consumption	5W	7W	5W
TX/RX at MCS0	29dBm / -96dBm	30dBm / -96dBm	26dBm / -96dBm
TX/RX at MCS7	24dBm / -76dBm	24dBm / -76dBm	23dBm / -76dBm
TX/RX at 6Mbit	29dBm / -96dBm	30dBm / -96dBm	27dBm / -96dBm
TX/RX at 54Mbit	24dBm / -80dBm	24dBm / -76dBm	24dBm / -76dBm

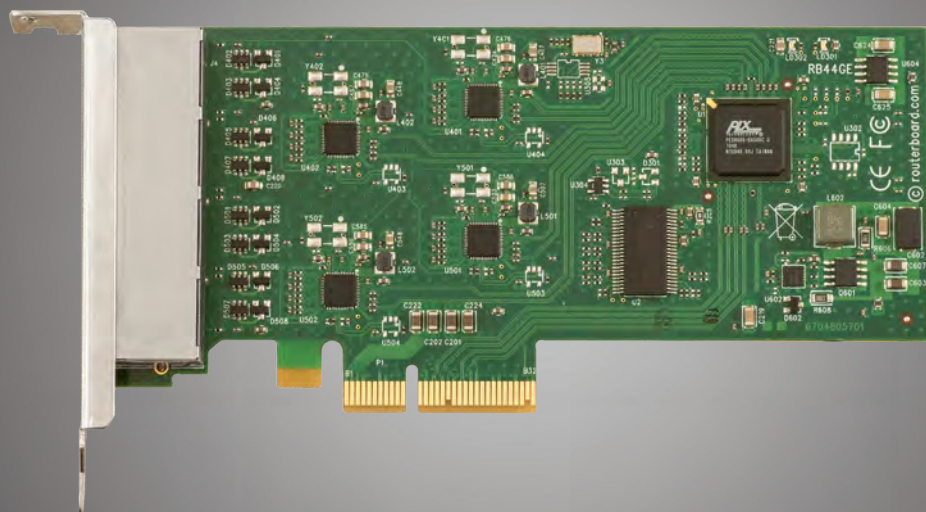
RB44Ge

Four port Gigabit server adapter

The brand new Gigabit Ethernet card features four 10/100/1000T Gigabit Ethernet ports on a single card, giving you the opportunity to add even more ports to your router, and saving valuable PCIe slots. Bring maximum throughput and port density to your device, and with PCIe - bus speed is no longer the limit.

The card use the high end Atheros AR8131/M chip:

- Checksum offload features for IP, TCP, and UDP, lowering CPU utilization and optimizing network performance
- Wake-On- LAN (WOL) and AMD Magic Packet™.
- IEEE 802.3x compliant flow control support
- Interrupt coalescing
- Advanced DSP architecture implementing digital adaptive equalization, echo and crosstalk cancellation
- Cable Diagnostic Test (CDT) for open, short cable, cable length detection, and incorrect or mismatched impedance.
- Intelligently reduces power based on cable length detected
- Green Ethernet feature support
- Supports Energy Star 4.0
- Two brackets included, low profile and regular



General specifications	
Chip	Atheros AR8131M
Format	PCIe 4X
Ethernet	Four independent 10/100/1000 Mbit Gigabit Ethernet ports with Auto-MDI/X
Dimensions	150 mm x 69 mm (excluding bracket)
Operating System	RouterOS, Windows, Linux

48V PoE converter

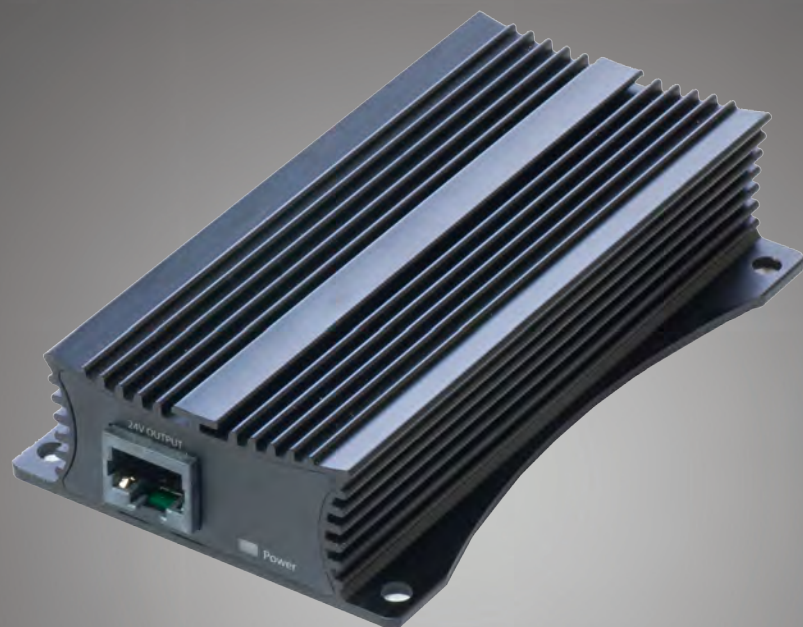
This device lets you use any 48V PoE source (including Passive PoE, Telecom PoE, 802.3af and 802.3at) to power RouterBOARD devices.

Simply plug any 48V PoE powered ethernet cable into one port, and any 8-30V capable RouterBOARD device into the other. This device is capable to provide high power output - up to 24W (up to 1A at 24V).

You can power it with virtually any 42-57V PoE solutions available on market today (Passive, Telecom, 802.3af and 802.3at PoE plus supported)

The device is a rugged metallic design, with high capacity components and integrated heatsink design. The case also has mounting holes so you can attach it to a wall.

Ethernet shield pins are inside the Ethernet connectors, so that shielded ethernet can be used, to ground either at the converter itself, or at the devices at both ends.



Name	RouterBOARD POE-CON-HP
Ethernet	Two Ethernet ports with grounding pins - one input, one output. (Works also with Gigabit devices, but only at 10/100 speed)
Dimensions	107x66x24mm
Power Input	42-57V (Passive, Telecom, 802.3af and 802.3at PoE plus supported)
Power Output	24V 1A
Output pins	4,5 "+"; 7,8 "-"

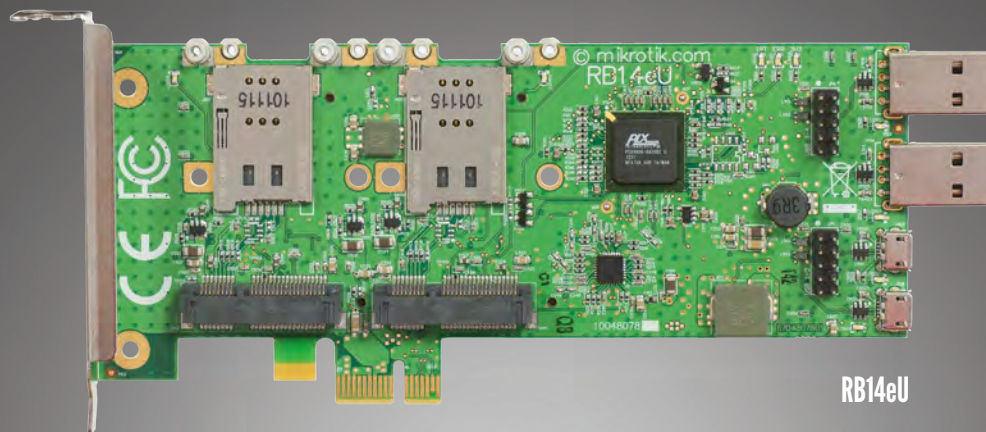
RB14e

RB14e is an adapter card for using four miniPCIe wireless cards in a PC with a PCIe slot. This gives you the ability to use our new R11e wireless interfaces in conventional PC computers.

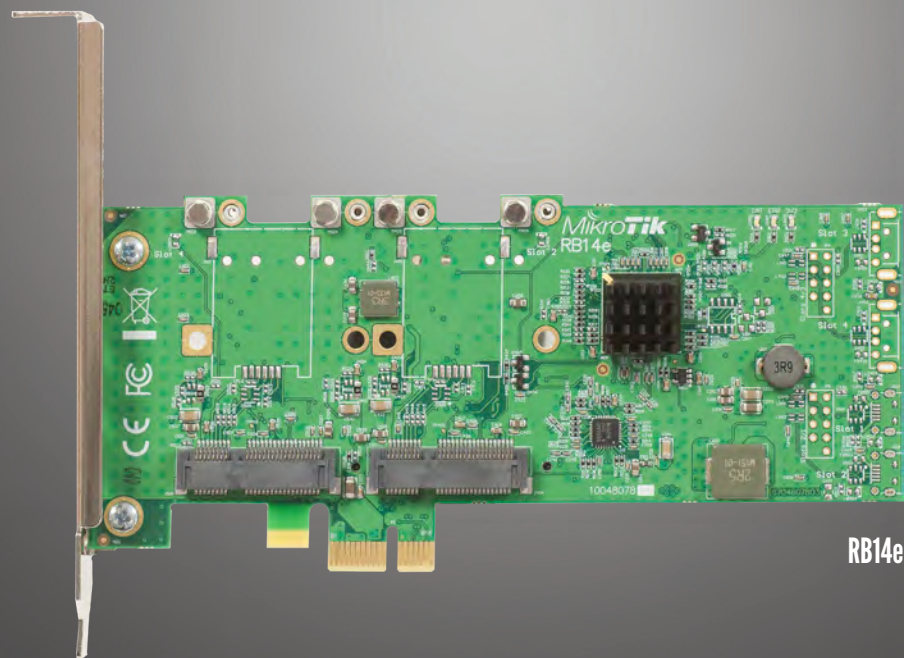
Another model, the RB14eU is available for using 3G miniPCIe cards, in addition to wireless cards. For this purpose, SIM card slots are provided for all four interfaces, as well as USB ports to ensure USB connectivity to the host PC, which is required for 3G miniPCIe cards.

Use this new adapter to expand your connectivity and upgrade your device to use the latest miniPCIe interface cards.

Each comes with both low and regular profile brackets. Brackets include holes for mounting SMA connectors, or for using as cable exit holes.



RB14eU



RB14e

Model:	RB14e	RB14eU
Form factor	PCIe x1	
Number of miniPCIe slots	4	
USB to PC connectors	-	6
Intended use	Wireless cards	Wireless cards and 3G cards
Bracket includes	Both normal, and low profile. Holes for cables provided (6/8)	
SIM slot	-	4

SFP transceivers

Model	Specifications
S-85DLC05D	1.25G, 850nm Dual LC connector, 550m, MM, DDMI
S-31DLC20D	1.25G, 1310nm Dual LC connector, 20km, SM, DDMI
S-35/53LC20D two module kit	S-35LC20D:1.25G SM, 20km, T1310nm/R1550nm, LC, DDMI S-53LC20D:1.25G SM, 20km, T1550nm/R1310nm, LC, DDMI
S+85DLC03D	SFP+ module 10G MM 300m 850nm LC-connector DDMI
S+31DLC10D	SFP+ module 10G SM 10km 1310nm LC-connector, DDMI

S-3553LC20D, S-53LC20D and S-31DLC20D modules (1.25G, 20KM modules)

Transmit	Min	Typ	Max	Unit
Output Opt. Power	-9	-	-3	dBm
Receive				
Avg Rx sensitivity	-	-	-24	dBm
Max Received pwr	0	-	-	dBm
LOS De-assert	-	-	-24	dbm
LOS Assert	-36	-	-	dBm

S-85DLC05D (1.25G, 550m module)

Transmit	Min	Typ	Max	Unit
Output Opt. Power	-9	-	-3	dBm
Receive				
Avg Rx sensitivity	-0	-	-20	dBm
Max Received pwr	-2	-	-	dBm
LOS De-assert	-	-	-24	dbm
LOS Assert	-35	-	-	dBm

S+31DLC10D (10G, 10KM module)

Transmit	Min	Typ	Max	Unit
Output Opt. Power	-6	-	0.5	dBm
Receive				
Receiver sensitivity	-	-	-14.4	dBm
Max Received pwr	0.5	-	-	dBm
LOS De-assert	-	-	-15	dBm
LOS Assert	-30	-	-	dBm

S+85DLC03D (10G, 300m module)

Transmit	Min	Typ	Max	Unit
Output Opt. Power	-7.3	-	-1	dBm
Receive				
Receiver sensitivity	-	-	-9.9	dBm
Max Received pwr	-1	-	-	dBm
LOS De-assert	-	-	-13	dBm
LOS Assert	-30	-	-	dBm

To complement our SFP cage equipped devices, we are now offering several SFP optical fiber transceivers that are compatible and tested with our products. Several types are available for the most popular SFP use scenarios.

Four of the modules are available separately, to connect to existing networks, or to make your own kits, and two of them are available as a kit, for one 20KM link.

Units are tested and compatible with all our SFP products.

S-85DLC05D is a 1.25G SFP transceiver with a 850nm Dual fiber LC connector, for up to 550 meter Multi Mode fiber connection, with DDMI

S-31DLC20D is a 1.25G SFP transceiver with a 1310nm Dual fiber LC connector, for up to 20 kilometer Single Mode fiber connections, with DDMI

S-35/53LC20D is a pair of SFP transceivers, the S-35LC20D is a 1.25G Single Mode optical SFP module with a single fiber LC connector, T1310nm/R1550nm, which works for connections up to 20km and supports DDMI. The S-53LC20D is a 1.25G Single Mode optical SFP transeiver with an LC connector, T1550nm/R1310nm, which works for connections up to 20km and supports DDMI.

Also available now, the SFP+ modules for our new SFP+ CCR model, S+85DLC03D and S+31DLC10D offer 10G speeds at a very affordable price.



Flex-guide

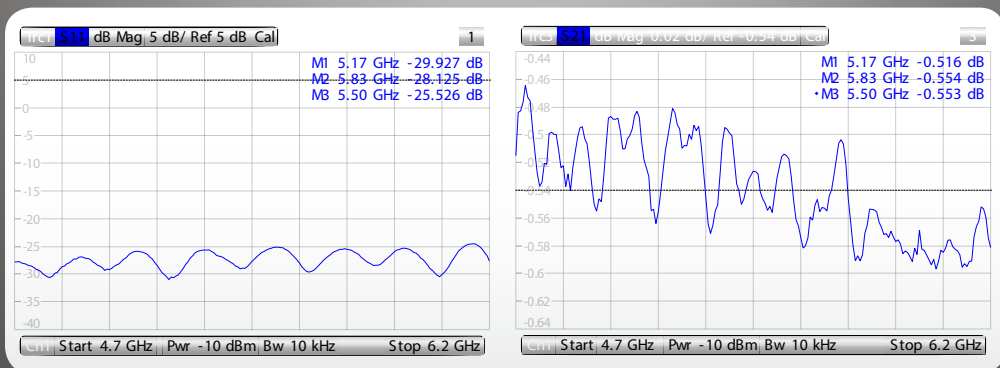
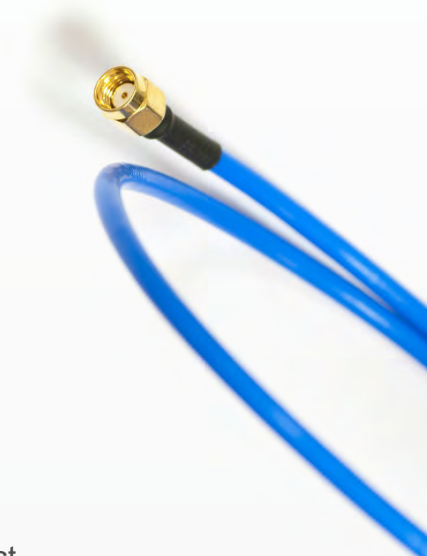
super low loss cable assembly



A super low loss RPSMA cable for superior connection quality, suited for indoor and outdoor use, this cable provides superior matching and loss values.

The name of this cable comes from combining the words “flexible” and “waveguide”, to denote the high end features of this product.

The inner conductor is silver plated copper, and both connectors are soldered, not crimped, for the best possible signal quality. Ideally suited for our BaseBox and other products with RPSMA connectors, and works with most antennas.



Product order code	ACRPSMA
RPSMA	Soldered on both ends
Inner conductor	Silver plated copper
Frequency	up to 6 GHz
Total signal loss at 6GHz	0.59 (Includes connectors. See chart for details)
Matching	Better than -20dB
Suited for	outdoor use
Cable length	500mm (19.7")
Outer diameter	4.2mm (0.2")
Min. bending radius static	8mm (0.3")
Min. bending radius repeated	40mm (1.6")
Operating temperature	-55 to 125C



To obtain MikroTik hardware and software, visit our distributors.
For more information and latest news go to
routerboard.com and mikrotik.com